

PSYCHOLOGY OF ADVERTISING

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PREFACE

THIS book supplements two of the author's previous works, *Principles of Employment Psychology* and *Psychology and Industrial Efficiency*, in rounding out the field of business psychology. The rôle of advertising in modern society needs no comment; the applications of psychological principles to advertising often mark the difference between success and failure. More and more, these principles are becoming recognized, and the psychologist is being consulted on advertising problems, as the developments in consumer analysis and market research show.

The book is intended, in the first instance, as a text for courses in the psychology of advertising. Students taking such a course usually have received some preliminary instruction in general psychology. Such a background naturally will facilitate study of the book. The work, however, should not for that reason be unintelligible to the advertising executive, the copy-writer, or the business man who prepares his own advertisements. With such readers in mind, many technical points which might otherwise be taken for granted are elaborated in some detail.

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H. E. B.

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CHAPTER I

THE DEVELOPMENT OF PSYCHOLOGY IN ADVERTISING

THE need for advertising develops as civilization becomes more complex. In primitive social groups the absence of an intricate economic structure made advertising unnecessary. Some think that it still is superfluous. As business develops and production becomes more specialized, however, the producer realizes that he must attract the attention of people to his product as well as try to influence them to buy it. Not only does specialized production entail the use of advertising, but, furthermore, the successful use of this medium results in increased consumption of products, so that manufacturing can be done on an even larger scale than before and more commodities are made available to the public at lower cost. Thus advertising is intimately related to economic development and is one of the manifestations of the differences between large-scale production for many consumers and local production for few consumers.

A generation ago psychology had little to contribute to the advertiser. It had developed, very properly, its purely theoretical aspect, for premature application of a science leads to abortive manifestations, such as witchcraft, necromancy, and alchemy. Not until the turn of the century did reputable psychologists devote their attention to application of their science to practical problems. Psychology at the present time is making appreciable contributions to education, law, medicine, and business.

Business psychology falls into three divisions. In the first, it deals with employment and develops techniques for measuring the aptitudes of persons who seek employment. In the second division psychology deals with those problems which arise after the employee is hired, such as teaching him his work, eliminating unnecessary fatigue, monotony, and accidents, and promoting morale. The third division of business psychology is concerned with marketing the product through personal selling or advertising. In recent years the producer, who wishes to influence the people to buy his

product, and the psychologist, who is interested in the numerous factors influencing human behavior, have been combining their efforts and finding solutions to a number of their common problems.

As has been pointed out, in early times when every family was self-sufficient there was little trade and no need for publicity regarding commodities that were available. When barter came into vogue and individuals began to specialize in making shoes or clothing, for example, the necessity arose for announcements that such and such a person made shoes or clothing. But the situation did not become at all acute until the advent of competition.

Early Types of Advertising. The earliest advertisement on record is dated at about 3000 B.C. and is a sheet of papyrus from Thebes which asks for the return of a runaway slave. Advertisements of gladiatorial contests and of baths were found on the walls when Pompeii was excavated. Frequently, in early times, the advertisement was not printed at all. Merchants employed such crude devices as building a fire to attract a crowd when a boat came in with a cargo. Many a sales message was given verbally by a crier who went about, accompanied by some device for attracting attention, such as music. In the early thirteenth century, four hundred criers were operating in Paris alone. They constituted an especially necessary advertising medium in this period because of the high degree of illiteracy among the population. The modern crier utilizes a speech amplifier on a truck with a phonograph record as the musical device for gaining attention.

This period in which advertising was done largely by oral methods with sporadic announcements in public places continued until about the beginning of the seventeenth century. With the advent of printing, more books and papers became available, and the result was an increase in literacy with consequent greater occasion for the use of the printed advertisement. Posters were used more extensively than in medieval times, and with the development of the newspaper, advertisements began to appear on its pages. An outstanding characteristic of advertising in this stage was its comparative disregard for truth. No one realized that fraudulent advertising might have an unfavorable effect on the entire profession. A handbill of 1652 preserved in the British Museum shows that coffee was advertised as good for dropsy, gout, scurvy, and sore eyes. In the *Mercurius Politicus* for November, 1660, one Theophilus Buckworth advertised his lozenges as good for curing

consumption, colds, asthma, diseases of the lungs, the plague, and "all other contagious diseases and obstructions of the stomach."

Later Developments. About 1850 the advertising agency made its appearance. Previous to that time each advertiser had planned his entire program and made all arrangements for carrying it out. The agency took over many of these duties and performed them more effectively. After the Civil War periodicals began to carry advertising instead of financing themselves by subscriptions alone. Subsequent years brought a tremendous increase in the number of firms using advertising and in the number of available media. Advertising was extended to a greater variety of services. Printing techniques and art work improved and qualitative changes kept pace with quantitative.

The Responsibility of the Advertiser. It is not within the province of the scientist to evaluate the effect of his investigations upon society. Applied science, strictly speaking, is concerned with means rather than ends.¹ Its task is to determine how a particular result may be accomplished and not whether that result ought to be achieved. The engineer designs the bridge, but the county commissioners authorize the construction. The chemist perfects the process for the manufacture of poison gas, but the army staff makes the decision regarding its use in warfare. The applied psychologist likewise may devise a technique for determining whether a criminal suspect is lying or may perfect a successful procedure for selling a particular commodity, but the police department or the court rules on the advisability of using the device for crime detection, and the manufacturer makes the decision regarding the use of the selling procedure.

Since the present book treats the contributions which psychology makes to advertising, it is perhaps introducing extraneous matter to consider the social responsibility of those engaged in advertising and selling. Nevertheless, when the application of scientific findings to technical problems exerts as wide and as important influences as it does in the case of advertising, to disregard the social implications of such procedure is to adopt an undersirably limited point of view. The advertiser himself has obvious social responsibilities, and perhaps the scientist who helps him should share those responsibilities. A few of the influences which advertising may exert on the public will therefore be considered at this

¹ Cf. Münsterberg, H. *Psychology, General and Applied*, p. 350 ff. New York, Appleton, 1914.

point, so that the reader as he continues his study may be more conscious of the distinction between desirable and undesirable practices.

The best way to survey the responsibility of the advertiser is to consider the outstanding effects or manifestations of his work and, in the case of each, to call attention to good and bad features. Sales constitute one of the most objective manifestations of advertising and the aspect usually considered by the business man. However, mere quantitative sales figures are not so important from a broader standpoint as the effect of the sale upon the consumer. To sell a person something for which he has no particular need may create dissatisfaction or cause him expense which he should not bear. In such a case it is difficult to escape the unethical character of the transaction. When the consumer is financially able to purchase a commodity, although he does not really want it, the ethical aspect is not quite so clear-cut. It is sometimes pointed out that the sale of the commodity not merely brings dividends to the manufacturer and the investors, but also reduces unemployment. On an occasion when a considerable number of workers in a clothing industry were about to be discharged because there was no work for them to do, a new style of women's hats became popular overnight, was pushed by an energetic advertising campaign, and, as a result, the workers were not discharged. In this instance the workers at least were undoubtedly benefited. However, it is also logical to inquire if more desirable ends could not have been obtained by employing the same workers in production which supplied needed commodities. Such considerations, of course, can be multiplied without end.

Influencing Public Opinion. Advertising is a powerful medium for influencing public opinion or belief. It might be noted in passing that belief does not have to be created by a logical process (*infra*, p. 100). Too often people believe what they want to believe, rather than what they deduce through a process of reasoning. An experiment brought out clearly the relation between belief, desire, and evidence.¹ A series of statements was prepared, ranging from some which were practically axiomatic to others which were largely matters of personal opinion. The subjects in the experiment evaluated these statements by a rating-scale method on three different occasions. The first judgment dealt with the degree to

¹ Lund, F. H. "The Psychology of Belief: A Study of Its Emotional and Volitional Determinants," *Journal of Abnormal and Social Psychology*, 1925, 20, 63 ff.

which the statements were believed, the second with the extent to which evidence was available as to the truth of the statements, and the third with the desirability of the statements. Correlation procedure (pp. 28-30) was applied to determine the relation between these three ratings. The correlation between belief and evidence was .42, between desire and belief .88, and between desire and evidence .03. Thus, belief was much more closely related to desire than to evidence. This relationship shows the responsibility of the advertiser. If he is attempting to establish an opinion, he can do so without resorting to logic. To what extent he should use this technique is determined by ethical principles.

The commercial advertiser is interested in influencing public opinion. Politicians, institutions, and organizations also employ this medium, and their efforts may shade over into propaganda. Business corporations, such as the public utilities, make definite efforts to arouse favorable attitudes, especially when such issues as changes of rates are under consideration. Labor and capital on occasion leap into paid advertising space. Likewise, there is advertising which deals with social issues, such as militarism or prohibition, or which attempts to develop public sentiment toward some matter of national policy in order to bring pressure to bear upon the Government.

The question might be raised as to whether or not printed advertising or radio discussions actually do influence political and similar beliefs to an appreciable extent. It is difficult to isolate the effect of the advertising because much political discussion takes place among individuals, and the tabulation of votes does not necessarily reflect the effect of advertising alone. Some data are available which show that radio discussions of social issues do have an effect upon the opinions of the listeners.¹ On four successive weeks addresses were given on the general topic of unemployment by such speakers as officials of welfare organizations, members of Congress, professors of economics, and representatives of labor. Four hundred people in fifteen different states were organized by the League of Women Voters to listen to the talks and take a test designed to measure their attitudes toward the problem before and after hearing the series. A control group took the same tests but did not listen to the radio series. In the experimental group it was impossible to control subsequent conversations about the topic, so

¹ Robinson, E. S. "Are Radio Fans Influenced?" *Survey*, 1932, 68, 546 ff.

that the results cannot be attributed entirely to radio. The first aspect of the scale involved writing the individual's best solutions for unemployment. The average member of the experimental group listed 4.50 different solutions before hearing the radio talks and 4.91 afterward, an increase of 10 per cent, whereas the control group listed on the average 4.27 in both cases. Changes of opinion are more obvious in an analysis of the five suggestions which were made most frequently by the experimental group. The results are summarized in Table I. The first column gives the number of times the

TABLE I. FREQUENCY OF MENTION OF REMEDIES FOR UNEMPLOYMENT, BEFORE AND AFTER RADIO LECTURES *

	Before	After
Shorter hours.....	186	199
Unemployment insurance.....	162	326
Public works.....	123	144
Government employment agencies.....	69	134
Low tariff.....	57	52

* Robinson.

item was suggested before the subject¹ listened to the radio, and the last column the number of times it was mentioned after the subject listened to the radio. Unemployment insurance and government employment agencies were almost doubled in frequency. These five proposals altogether showed an increase of some 43 per cent in frequency of mention as a partial result of the broadcasting, whereas the total number of suggestions, as indicated above, showed only a ten per cent increase. The more popular suggestions were the ones that showed the greatest effect of the radio.

In another part of the experiment, a series of 120 statements about unemployment culled from newspapers were rated by the subjects on a five-point scale as to their truth. The experimental group showed a tendency in their second rating toward an increase in the number of favorable judgments, a slight decrease in the doubtful category, and practically no effect on the items which they considered false. The control group showed comparatively few changes in ratings of the statements a month apart. The bearing of this experiment on the present discussion is that it demonstrates that a medium such as radio can influence public opinion on topics of

¹ In psychological terminology the "subject" is the person on whom the experiment is conducted or who is subjected to the various experimental situations.

public import. This fact makes advertising's responsibility appreciable.

Another manifestation of advertising which is of ethical consequence is the preferences which it may create among consumers. Such preferences are essentially habits and may be developed in several ways. Some of them are accounted for by the mechanism of conditioning. For example, a person encounters a certain color on a pleasant occasion, such as on a vacation, and thus becomes conditioned to that color so that subsequently he likes it. Another mechanism is adaptation. If one is subjected to a particular stimulus, such as oatmeal, for a long period, even though he does not care for it at first, he may lose his dislike and may even develop a penchant for it. Suggestion and imitation account for still other preferences. Merely being told that a cold bath is good for one or seeing others indulge in it with apparent pleasure will change an attitude to a certain extent. Finally, if one is led to accept a thing and to act as though he liked it, a corresponding feeling of pleasure may develop. Many people go to the opera for social reasons and, because it is the accepted thing to do, behave as though they liked the opera; they applaud and tell their friends how wonderful the production is, so that gradually they develop a different attitude. The advertiser uses all of these mechanisms to a certain degree. He presents a food item tastily served and in an attractive atmosphere and hopes thus to arouse the desire for that food. The consumer is induced to smoke several packages of mentholated cigarettes before making a decision in the hope that he will become favorably adapted to the strange taste. The advertiser applies suggestion and imitation by showing how certain people in the upper social strata use the hand lotion he sells, and when he urges the prospect, "Tell your friends about it," he is utilizing the principle of going through the motions of acceptance.

The Educational Value of Advertising. Many preferences go beyond the mere matter of sales and relate to the consumer's welfare. Advertising is responsible for some of the attitudes of the public toward calories, vitamins, ultra-violet light, cod-liver oil, and similar things which, in the opinion of some authorities, have an important bearing on health. The attitude of the public toward art, likewise, is inevitably influenced by the artistic or inartistic products with which it may be stimulated through the medium of advertising. Much the same principle applies to musical appreciation, which may

be influenced by programs heard on the radio. There is, furthermore, the question of the way speech may be affected by radio presentations, because language is to a great extent a matter of imitation.

That advertising may perform a function by improving the taste of the public is easily recognized. The aesthetic attitude is a type of mild emotion, and the psychologist knows the extent to which emotions are influenced by merely going through actions or by assuming appropriate postures. Anger is accentuated by gritting the teeth or by clenching the fist, and is somewhat inhibited by relaxation. Fear is increased by running away from the supposed source of danger, such as from a graveyard at night. The same principles apply with reference to attitudes toward the beautiful. If one is stimulated by such objects, talks about them to his friends, and imitates others who are accepting and apparently enjoying them, the attitude will develop. Commendable efforts are made in the schools to surround the pupils with artistic objects and to lead them to go through the motions of accepting these surroundings as pleasurable. The more frequently a person is stimulated by such objects, the greater are his chances of developing an adequate appreciation. Advertising presents a series of such objects, which are artistic or otherwise, so that those who come into contact with the advertising will be influenced either desirably or undesirably. Poor speech employed in advertising over the radio will produce an influence on the hearer just as will good music.

A final cultural possibility of advertising is the furnishing of certain information in the course of the advertising program. Broadly speaking, the cultured person is provided with a large background of information, and insofar as advertising contributes to this background it is to be commended. A considerable amount of historical information is given to the public through this medium. One company erected poster boards near places of historic interest, and gave on them a brief statement regarding the historical facts. On the radio an occasional program centers around historical events and dramatizes them. Another sphere of interest is in scientific and technological fields of endeavor. As part of the advertising program the reader may learn much about raw materials and the construction of the product. It must be realized, nevertheless, that at times the advertiser distorts the information he gives, or at least gives the wrong emphasis as a result of his interest in formulating a

new selling point. An example is the instance of the cigarette manufacturer who discovered in some medical journal that the introduction of nicotine into the body caused the release of a minute quantity of adrenalin into the blood stream. It is known from other experiments that adrenalin does increase the sugar content of the blood and send it out to the muscles and thereby facilitates more vigorous action. However, it was rather a far cry from the presence of this minute amount of adrenalin as a result of nicotine to the advertisements which urged one to "get a lift" or to relieve fatigue by the use of a particular cigarette. Thus, advertising on occasion distorts the information which it presents. On the other hand, it may provide much valuable information to the readers or listeners and thus broaden their cultural background.

Advertising may make contributions to, and has certain responsibilities in connection with, the development of a desirable attitude toward hygiene. Instances can be cited in which advertising has made definite contributions to health. The slogan "A clean tooth never decays" made countless people more conscious of oral hygiene, although it was propounded mainly in order to sell toothbrushes. The public is more conscious of the need for antiseptics as a result of advertising. Time was when a workman who had an abrasion wrapped it with any available bandage, clean or dirty, and forgot about it until it became septic. Now, the average person cares for wounds more intelligently. Although educational campaigns on this subject have been conducted by schools and industrial organizations, the advertisers of antiseptics deserve a certain amount of credit for the change in the attitude of the public. On the other hand, the effort to educate people as to the use of some particular commodity is often overdone. Human difficulties which are comparatively trivial are magnified so that they appear to be serious ailments which may be relieved by some advertised nostrum. Endorsements of a product by a European doctor are advertised when the American Medical Association enjoins its members from making such recommendations. Practices of this sort are especially reprehensible because things pertaining to health touch people closely, and the average individual is more suggestible regarding these personal matters than regarding more objective things such as his automobile or his food.

The effect of advertising upon mental hygiene is less obvious than its effect upon physical hygiene, but it is of importance.

Aside from occasional talks intended to reassure the public or to modify their economic worries, the only contributions of advertising are negative. An outstanding case is the children's radio program which comes near bedtime, involves undue excitement, and ends in a climax which may produce a prolonged and disturbing emotional experience. Parents and educators agree that the result is undesirable.

The worst effect which advertising is likely to have on adults is the overemphasizing of many ailments which are minor in character. In some individuals such fears may approach a mild degree of hypochondria. It may be entirely justifiable to frighten a person into purchasing some safety device or into exercising due precaution in driving an automobile. But to threaten one with social ostracism because of odors from perspiration may lead to unnecessary worry and the development of a feeling of inferiority. Minor mental maladjustments arise from numerous trivial causes, and there is no reason for advertising to constitute an additional cause.

Advertising, moreover, may make suggestions which will result in undesirable social conditions. Criminals are not "born," strictly speaking, and, although they frequently have potential weaknesses, environmental factors are also instrumental. An outstanding environmental factor is suggestion. If youngsters discuss crime, if they read about it, or if they see it portrayed on the screen, a certain element of suggestion is involved, and, in some cases, it has been found to lead to criminal behavior on the part of the individual. Consequently, it is desirable to eliminate as far as possible the sources of criminal suggestion in advertising. Many of the sketches which are presented over the radio include the criminal motive either in the form of a story in which the detective unravels mysteries or in the form of the adventures of an individual who runs afoul of a group of criminals and manages to keep ahead of them in a series of daily climaxes. To present these details to the youthful imagination is undesirable in that the youngster may be led to imitate the adventures. The defense is sometimes given that stories and plays dealing with the criminal theme teach a "moral lesson," because the criminal behavior is presented as the type of thing which one should avoid. Psychologically, this is not the case. There is always a danger in negative suggestion in that the negative part may not remain with the rest of the suggestion. If a person is told not to open a certain door, he has received the suggestion to

open it and may do so in spite of the warning. Similarly with the criminal sketch: the suggestion that crime does not pay leaves a comparatively mild impression, while the thrilling aspects of the sketch leave a permanent, undesirable suggestion.

Characteristics of Modern Advertising. In the foregoing discussion several of the aspects of advertising which are of interest at the present time were presented. Advertising today is developing higher standards and practices. In 1911 the Associated Advertising Clubs of the World established their vigilance committee. *Printers' Ink* formulated a model statute, which stated that anyone publishing an advertisement which "contains an assertion, representation, or statement of fact which is untrue, deceptive, or misleading shall be guilty of a misdemeanor." The majority of the states have adopted this statute in the original or in modified form. In the past, the individual advertiser had told his own story, exaggerating as he saw fit or as much as he dared. It began to dawn upon the advertisers, however, that the individual was not alone in his project, and that the public was developing an attitude toward the entire advertising profession which meant that the fraudulent practices of a few advertisers might have an unfavorable effect on many others who were sincere. This conclusion is perfectly sound from a psychological standpoint. According to the principle of "affective expansion,"¹ the feelings or emotions aroused by a single event spread over an entire situation or over other similar events. It is to be noted that the phenomenon occurs in the field of emotion rather than in that of reasoning. One is insulted a few times by a person with red hair, and therefore assumes that all titians are irascible and difficult to deal with. If one answers an advertisement and is cheated, the assumption that all advertisements are deceptive may be entirely illogical, but one is likely to forget the numerous occasions when the product measured up to the claims of the advertisement. Right or wrong, the public does not always reason logically, so that the whole group of advertisers essentially stands or falls together.

This fact has been realized with increasing force during the more recent years, so that when fraudulent material appears other advertisers or an advertising club take steps in their own interests to have it discontinued. There still exist many unsolved ethical problems in advertising; for example, how far one should go in advertising which actually reduces the sales of some other industry; or how far

¹ Titchener, E. B. *A Text Book of Psychology*, p. 495. New York, Macmillan. 1911.

one should imply indirectly that all other brands are unsanitary or have other undesirable characteristics; or how much indelicacy is permissible in advertising personal hygiene; or to what extent a minor property of a product should be expanded into a major selling point. But, be that as it may, the present state of advertising is on a far higher ethical plane than it was a few generations ago. Taken by and large, the public is justified in placing a fair degree of confidence in present-day advertising and in trusting that there is comparatively little downright misrepresentation.

CHAPTER II

METHODS EMPLOYED IN ADVERTISING PSYCHOLOGY

THE methods by which scientific results are obtained are almost as important as the results themselves. Only when we know how the data were collected can we evaluate them adequately and draw valid conclusions. As we cite numerous experimental findings in subsequent pages we shall have frequent occasion to refer to the methods employed. Inasmuch as many of these references will be identical, it will facilitate matters to describe some of the techniques once and for all. Subsequent reference to such techniques can then be brief.

It should be mentioned in passing that psychology today is essentially an experimental science. In early times it involved merely the contemplation of some mental experience and *a priori* theorizing about it. But psychology left the armchair for the laboratory a hundred years ago. Even within the experimental era a shift in emphasis should be noted. At the outset the principal method was introspection, that is, observing the mental process directly and then describing it. The experimenter did control the conditions under which the observation was made and noted in detail the introspective report of the "subject" or "observer," but the recent trend has been toward more objective or behavioristic methods. Certain stimuli are presented and the subject's behavior is noted. Although the objective approach is in greater favor today, both types of method have their place in advertising. Some problems, such as determining memory for trade names, can be approached objectively, and others, such as preference for a picture, yield only to a subjective approach. The applied psychologist must be eclectic and accept results obtained by any scientific method which aids in solving his problems. Methods used in advertising may be classed under three general headings: the experimental methods, both objective and subjective, methods of investigation of returns, and the historical method. These will be discussed in order.

EXPERIMENTAL METHOD

The largest contribution to advertising psychology comes through actual experimentation, which is, of course, fundamental in most of the sciences. There are times, however, in which it is possible in advertising psychology to utilize experimental results which have already been obtained elsewhere, rather than to conduct a special experiment on the problem in hand. If such a procedure is feasible, the economy is obvious. It is tempting, for example, to tell the whole story in a headline, but the question arises as to whether or not there is any limit from the standpoint of the reader's attention. A glance through the psychological literature will reveal data with which to answer this question. In other connections, investigations have been made of the "range of attention." The experiment consists essentially of presenting material in a tachistoscope.* Four isolated letters or digits are exposed for a tenth of a second, so as to preclude eye movement, and the subject is required to state what he saw. Then five, six, and seven items are exposed until the subject reaches his limit. Nearly every subject can read four or five symbols in a single flash, but he begins to have difficulty with six or seven items. If the letters are grouped into words, he can grasp a few more letters, but there is a similar limit to the number of words which can be apprehended in a single act of attention. Consequently, this result is the answer to the problem originally raised as to the effective length of headlines. More than six or seven words exceeds the normal range of attention, and the subject will not grasp the headline of this size in a single glance.

One other instance may be cited of utilizing data obtained in other psychological experiments for a particular advertising problem. Suppose one is planning an advertisement which is to contain a rectangular panel. The product is artistic and it is desirable to lend the advertisement atmosphere by employing the most aesthetic proportions for the rectangle. This particular problem has been studied in other connections where the interest was in theoretical aspects of aesthetics rather than in any practical advertising consideration. Such experiments employed rectangles all of the same

* Tachistoscope comes from Greek words which mean "look quickly," and denotes any form of exposure apparatus in which material is presented for a brief interval of time. A simple type involves an exposure field and a camera shutter through which the subject may look. Another variety employs a focal plane shutter, that is, a screen containing a slit which sweeps across the field when actuated by a spring. Another type has a pendulum which rotates a disc in front of the field with a sector of this disc removed, so that the material is visible momentarily.

area but of various proportions, and the subjects were required to compare them two at a time, using all the possible combinations, and in each instance to select the rectangle which they considered the more attractive or pleasing. If each rectangle is paired with every other one so that each has an equal chance to be selected, the one which receives the greatest number of "votes" is undoubtedly the most pleasing of the group. Such experiments have indicated that when the dimensions of a rectangle are roughly in the ratio of three to five, persons are most favorably impressed. This result answers the advertising problem regarding the proportions of the panel.

The two foregoing instances are typical of the possibilities of obtaining results from other psychological experiments and applying them directly to some specific advertising problem. In most cases, however, it is necessary to attack the specific advertising problem experimentally and to devise a special technique for that purpose. The discussion of such techniques will be subdivided into the more objective types of experiments; the more subjective types; and what may be called field studies.

The Importance of Restriction to One Variable. One fundamental point should be observed in conducting experiments, a point which applies to practically any scientific experiment. The situation should be limited to as few factors, or variables, as possible. The psychological experiments to be discussed must be considered carefully with reference to this principle. In some of the earlier studies of the relation of the size of an advertisement to its attention value there were used dummy magazines made by clipping advertisements and pasting them together in magazine form. This material was presented to the subjects, who were asked to recall all the advertisements they could.¹ In the material there were full-page, half-page, and quarter-page advertisements, and it was comparatively simple to compute the percentage of the full-page advertisements that were recalled and the percentage of the half-page advertisements. In some of these experiments, the former percentage was more than twice the latter, and the conclusion was drawn that a full page, from the attention-arresting standpoint, was actually more than twice as effective as a half page. However, a moment's consideration will

¹ For a more elaborate method of computing the recall value in such experiments, taking account of the order as well as the frequency of mention, see Barkley, K. L. "The Development of a New Method for Determining the Relative Efficiency of Advertisements in Magazines," *Journal of Applied Psychology*, 1931, 15, 390-393.

reveal that other variables entered into this experiment. More pictures may be included in the large advertisements because there is more room for them. There will doubtless be more white space because it is not so necessary to crowd the material in order to include it all. The display headings may be different, and more of the full-page advertisements may be colored. These other variables obscure the relation between the factors under investigation. To attack this problem in such a fashion as to yield results which concern the actual relation between size and attention, cards are prepared on which are mounted small squares of color of different areas. These may be presented in a tachistoscope, and the subjects required to report which patch of color they see first. The colors are employed merely to check on whether the subject saw that particular square or not. In the series of cards, each color appears equally often in each size and in each position so that these latter variables are averaged out in the final results. Valid conclusions may then be drawn as to the relation between size and attention-arresting value because all other factors, such as pictures, color, headlines, and white space, have been eliminated.

Another experiment deals with the comparative legibility of words printed in upper case (capitals) and lower case (small letters). Words are printed, some in upper and some in lower case, and presented one at a time in a tachistoscope to determine the proportion of each case that is read under these conditions. However, if the material is not prepared systematically, longer words or more difficult words may be included inadvertently in the upper-case list and consequently the lower case will show an undue superiority. The only way to keep the content or the difficulty of the words constant is to use the same words printed in both ways. In order to counteract any effect of practice half of the words should appear for the first time in upper case and the other half in lower case, but all of them should subsequently reappear in the other kind of type. Under these conditions a valid comparison may be made between the same groups of words that have been presented in both type forms.

Apparatus for Problems of Attention. The foregoing illustrations described a few of the experimental methods applicable to advertising problems. It is well at this point to mention briefly some other methods. The tachistoscope already described is used in studying numerous problems involving attention. It is a device

with which materials may be presented to a subject for a brief but controllable interval of time. Another technique applicable in this same field involves the observation of eye movements. Two advertisements are presented side by side and the experimenter, seated opposite the subject, observes surreptitiously the latter's eyes. A one-way screen may be placed between them and the subject may be kept unaware of the real nature of the experiment if some piece of apparatus is attached to him and he is told that it records emotional reactions. The experimenter operates telegraph keys to record when the subject is looking at the right or at the left advertisement.

In a more highly refined administration of the technique the eye movements are photographed by reflecting a beam of light from the cornea and focussing it on a moving film, thus obviating any error due to the experimenter's inaccuracy of observation. Such recording is indispensable with very short exposures (less than a second).^{*} The assumption is made that eye movements are an index of attention value, and that if the subject spends twice as much time looking at one picture or advertisement as at the other, the former is proportionately more effective from the attention-arresting standpoint. Hackman and Guilford, using the photographic technique, conclude that the conventional method of merely observing the eye movements should be discounted somewhat. Factors such as size or novelty which would be expected to enhance attention value considerably do not come up to expectation in their results. Their analysis reveals, however, that the direction of the first fixation is a better index of attention than the total time spent in observing one item of the material. Misleading results are sometimes obtained when the subject finds some item difficult to understand and looks at it more closely for that reason.

Speed of Association. In studying problems such as the comparative strength of association from *Chesterfield* to *cigarette* and that from *cigarette* to *Chesterfield*, it may be desirable to measure the speed of the association. A typical chronoscope for this purpose consists of a synchronous motor and a magnetic clutch. An exposure apparatus has a shutter which drops to reveal a stimulus word and simultaneously makes an electric contact. This contact operates the clutch so as to throw a hand in gear with the motor. The subject speaks the first associated word into a diaphragm which

* Hackman, R. B., and Guilford, J. P. "A Study of the Visual Fixation Method of Measuring Attention Value," *Journal of Applied Psychology*, 1936, 20, 44-59.

operates another circuit so as to stop the rotating hand. This hand moves in front of a calibrated dial which makes it possible to measure in thousandths of a second the time between the presentation of the stimulus and the subject's response.

Recall and Recognition Methods. A widely used procedure consists of presenting advertisements or other material under standard conditions and requiring the subject to recall the advertisements or to recognize them when presented along with a number of others which were not shown originally. In some cases a dummy magazine is prepared by cutting and pasting so that the material can be selected in such a way as to eliminate some extraneous variables. In other cases the subject "looks through" an actual magazine. In still others he is asked if he has seen a particular issue of a magazine, and if so is then given the recognition or recall test. Experiments in which both recall and recognition methods have been employed with the same material have yielded somewhat contradictory results. In one case fictitious advertisements were constructed with variables such as color, pictures, and size adequately controlled. The rank order of effectiveness of these advertisements in recall was totally different from their rank in the recognition test, as shown by a correlation coefficient of .06 (cf. p. 28).¹ On the other hand, in a study in which the subjects were carried in automobiles past poster-board displays and tested for recall and recognition immediately afterward, a correlation of .71 was found between the two methods.²

A difficulty that characterizes the recognition method especially is that it reflects not merely the effect of the dummy or magazine that has just been presented but much of the previous advertising that has stimulated the subject through the years. Time and again the subject states that he recognizes an advertisement as seen in that particular experiment when he actually saw it elsewhere or was merely familiar with the product from other sources, such as conversation. In a study with a dummy magazine it was found that advertisements at least a year old mixed in with those just shown in the dummy were "recognized" a considerable portion of the time. In another case a group of students were asked to read a certain magazine and then were given a recognition test for advertisements in that issue by presenting them on a screen. The highest score was

¹ Brandt, E. M. "The Memory Value of Advertisements," *Archives of Psychology*, 1925, no. 79.

² Burr, H. E., and Crockett, T. S. "A Technique for Psychological Study of Poster-Board Advertising and Some Preliminary Results," *Journal of Applied Psychology*, 1928, 12, 43-55.

made for a forthcoming advertisement of a familiar refrigerator which had not appeared in any publication.*

Recall tests are subject, in a possibly lesser degree, to this same limitation. If the subject is asked, "What soap advertisement do you recall having seen recently?" the result may reflect not merely the advertising of the product in which the investigator is interested at the moment but also the effect of competing advertising. The recall method, as implied above, may be administered without previously stimulating the subject with a magazine or dummy, but may merely investigate the effect of his previous extra-laboratory contact with advertisements. To this extent, the recall method may be conducted with subjects who come to the laboratory or by interviewers who go to the homes. In the latter case the experiment would more properly be classified under *field studies (infra)* than under *laboratory methods*. The procedure of recall may be varied. The subject may merely be asked to recall all the advertisements he can. His recall may be "aided" in various ways, such as providing a list of products and asking him to give the brands which he saw advertised in the material. Another variation, usually conducted in an interview, consists in asking such questions as: "What beverage advertises 'the pause that refreshes'?" or, "What coffee does the Show Boat program advertise?" Two items, the product and the slogan or some other advertising feature, are sometimes thus presented in order to determine the extent to which these two together are associated with the brand.

Value of Experiments Conducted in the Laboratory. Many of the problems of advertising psychology can be taken out of their practical setting into the laboratory and studied there by some of the methods described above. It is realized that conditions in the laboratory differ from those in everyday life, where the advertisement normally operates. But in many of the advertising problems it is relative results that are important, and this relative aspect of the different variables prevails in the laboratory just as it does in daily life. Thus, it is probable that the same fundamental psychological factors which make words in lower-case type more legible in the laboratory will operate similarly in the living-room. In both places one reads by the general configuration of the word, perceiving a few letters and filling in the blanks, rather than noting each individual letter. Lower-case words facilitate the process because of the

* Jenkins, John G. *Psychology in Business and Industry*, p. 372. New York, Wiley, 1935.

characteristic forms extending above and below the line. Similarly, the more rapid associations from *Elgin* to *watch* as compared with those from *watch* to *Elgin* that are found in the laboratory undoubtedly prevail in everyday life. It is just as much more difficult to think of a particular brand of watch than it is to think of watch when a brand is mentioned under everyday conditions as it is under laboratory conditions. In certain problems, to be sure, the experimental setting is so different from the everyday setting that the above principles do not apply. Outdoor advertising is a case in point. The prospect at the steering wheel is not comparable to the laboratory subject.

The laboratory experiments have one outstanding advantage in that far better control may be exercised over the total mental situation. It would be difficult to conduct crucial experiments in the public library or on the street car because the distraction might be great or small for different persons and at different times of day, and it is almost impossible to make allowances for such distractions. The problem of controlling the experimental situation is much more acute in psychology than in the other sciences. The reagents in a test tube are little influenced by the passing street car, the approaching thunderstorm, or by having been out the night before. With human subjects, such items constitute additional variables in the experiment and every effort should be made to eliminate them. Only in the laboratory can such control be adequate.

Subjective Experiments. The experiments described above yielded results in objective terms such as thousandths of a second or number of words read, or number of subjects who give a particular answer. In other problems, unfortunately, it is necessary to employ subjective methods. In ascertaining, for example, whether one advertising appeal arouses pleasanter feelings than another, the only possible approach, at present, is to ask somebody about them. This procedure is far from ideal. Generally speaking, an objective result is worth more than a subjective, but in some cases it is a matter of taking the subjective or nothing. A typical problem arises when a concern has a set of appeals for selling some commodity and wishes to know their comparative merits; for example, whether people will be more inclined to purchase the automobile because of its appearance, its speed, or its durability. These appeals are submitted to a group of subjects who rank the appeals as to their probable effectiveness in influencing them to buy the automobile.

The same procedure has been used with entirely abstract appeals quite apart from any commodity (p. 114).

The method is sometimes varied by breaking down the advertisements into certain aspects and having these rated separately. They may be ranked, for instance, as to attention value, appeal, convincingness, and general effectiveness. Studies of this sort often indicate a high correlation between different pairs of rankings. The subjects apparently form a general impression of the advertisement and rate it correspondingly high or low when attempting to evaluate some more detailed aspect.¹

The subjective method of evaluation is used by many an agency or writer of advertising copy. After alternative sets of copy are devised, the opinion of other persons is sought as to the effectiveness of the proposed advertisements. A common procedure is to show the copy to other members of the staff, but this has its disadvantages. Persons connected with an agency are rather advertising-conscious and probably too sophisticated for the purpose in hand. Outside opinion is preferable. Some concerns maintain a "jury" of considerable size, even as large as five hundred. The jury is called upon periodically to pass judgment on advertising copy, and their opinion will probably be somewhat representative of consumers in general. An investigation with a small group of advertisements indicated the inferiority of the judgment of the advertising staff to the opinions of persons more typical of the actual consumers. Proofs of eight advertisements were ranked by seventy ordinary individuals and by seven advertising men. The actual rank in sales resulting from the advertisements was obtained subsequently. The judgment of the seventy individuals showed an appreciable correspondence with the sales; the opinions of the advertising men almost none.² Another jury was less successful. They were given six pairs of advertisements, each pair consisting of a good and a bad advertisement from the sales standpoint. The jury separated them into good and bad exactly as efficiently as they would have done if blindfolded. They were equally ineffective when given six advertisements the "pulling power" of which was known and asked to rank them in order of that pulling power. The advertising staff did not participate in this experiment.³ The method

¹ Cf. Yerkes, R. M. "The Class Experiment in Psychology with Advertisements as Materials," *Journal of Educational Psychology*, 1912, 3, 1-17.

² Giellerup, S. H. "Let's Stop Guessing about Copy," *Advertising Fortnightly*, September 23, 1925, 5, 24.

³ Groesbeck, K. "Copy Testing as Seen in the Spotlight of Hard Times," *Printers' Ink*, August 18, 1932, 160, 3 ff.

of systematically soliciting opinions merits classification as experimental, but the subjective character of the data must be recognized. This type of approach must be employed for some time to come until, perhaps, objective means of measuring preferences and attitudes are perfected.

Field Studies constitute another type of the experimental method. The subjects are studied in the actual everyday conditions under which they are stimulated by advertising. The investigation of outdoor advertising is a good example. The reader of poster-board displays while walking or driving is not comparable to the subject sitting quietly in the laboratory. One field study involved putting the subjects into automobiles with no intimation as to the purpose of the ride, and carrying them by a set of poster boards at twenty-five miles per hour. The car was driven around the corner out of sight of the boards and there the subjects were required to write down the names of all the commodities they had seen advertised on the boards, as well as further information regarding the pictures, colors, slogans, and trade names. Then they were given a recognition test in which they were presented with a list of trade names including all those which had been advertised upon the boards and a number of others in addition. From this list they were required to select those that they had seen on the poster boards. This type of experiment made it possible subsequently to analyze such problems as the position of the board in the series, the color of the board, the distance back from the street, whether grouping of boards together in sets of three or four was preferable to having them set out continuously, the advisability of head-on location, the effect of surroundings, and the distractions from objects across the street.

Another type of field study was conducted by a banking concern which was interested in the effectiveness of different posters for display in the lobby. They placed posters in their branch banks and detailed an employee to count the persons who entered the lobby, the number who glanced at the poster, and the number who stopped to read it. These latter figures were reduced to a percentage of the total number who entered, and by varying the copy from day to day in the different branches, it was possible to determine the posters that had the best attention-arresting value, or that at least induced patrons to stop and read them. A similar procedure was used with posters in the window, with passers-by as subjects.^{*} A fair amount

^{*} Herrick, A. "Testing Attention-Getting Value in Bank Advertising," *Advertising and Selling*, September 30, 1931, 17, 36 ff.

of reliability for this type of observation was indicated by the fact that out of the six posters the three that proved best in the lobby also proved best in the window, and the same individual poster was poorest in both locations.

Nixon has carried somewhat further this technique of observing what persons do naturally when subjected to certain advertising stimulation. He hired a vacant store and set up in the window a booth provided with a peep-hole. On the front were two display racks in which advertisements or other types of material could be presented, and by an appropriate mechanism the contents of these display racks could be changed from within the booth. Large question marks on the flanks of the booth induced many pedestrians to come up to the window. Whenever one of them arrived, the experimenter, invisible inside the booth, presented two advertisements on the racks, side by side. He looked through the hole watching the pedestrian, with particular reference to eye movements. The experimenter operated two telegraph keys, keeping one depressed whenever the subject was fixating the left advertisement and the other depressed whenever the subject was fixating the right advertisement. These keys operated signal magnets which made records on a moving paper tape, so that it was possible subsequently to measure how many seconds the subject had looked at one advertisement and how many seconds he had looked at the other. After the subject had been confronted with a pair of advertisements for thirty seconds the invisible experimenter presented another pair and observed the eye movements. This procedure was continued as long as the subject remained at the window and was resumed when another pedestrian stopped. By appropriate selection of materials it was possible to compute the percentage of the time that the subject looked at a colored advertisement or at one with a picture, relative to the amount of time spent on a competing advertisement lacking in these respects. The advantage of this method is that the subjects are unaware that they are being experimented upon. Their eye movements undoubtedly afford some index of the attention and interest value of the advertisements.

Another type of field study was initiated by Gallup.¹ Its aim was to ascertain what advertisements or portions of advertisements persons remembered that they had read. It is somewhat similar to

¹ Cf. Anon. "The Gallup Method of Advertising Research," *Advertising and Selling*, March 16, 1932, 18, 30 ff.

the laboratory procedures mentioned above of finding persons who were known to have read a certain issue of a magazine and conducting a recognition test with a set of advertisements drawn from that issue and from others. In the present method the investigator sought out individual readers and went through the copy with them to find what they had read.

The general technique may be illustrated by a study of four current magazines. The interviewer had a copy of each magazine. When the housewife came to the door he asked her if she had a copy of any of these in the home. If she had read one of the magazines, he asked her to tell him what she had read as he turned the pages quickly. He then turned the pages while she looked, and he marked with colored pencil all the portions she recognized. He noted not merely the page but also what parts of the page she had read. A fresh copy of the magazine was used for each interview. A similar procedure has been used with newspapers. It contributes information as to the attention value of the advertisements rather than their sales effectiveness. It also tells something about parts of a magazine or newspaper in which the interests of the readers were concentrated. Much depends on the ability of the interviewer to elicit adequate co-operation and on the patience of the one interviewed, especially if the magazine is large. Another difficulty is that the subject may "recognize" an advertisement that he saw previously in a totally different magazine rather than in a duplicate of the magazine used by the interviewer.

A somewhat similar project was administered by Crosley, Inc., sponsored by the Association of National Advertisers. Listeners throughout the country were interviewed as to what radio programs they had heard on a given day and also as to whether they had listened to the radio that day. The number mentioning a certain program was reduced to a percentage of those listening in at all on that day. No account was taken of the time spent listening. One of the advertising agencies maintains investigators in twenty-six cities and makes 125,000 phone calls of this sort per year.

One other field method may be mentioned, although its application is limited to a few kinds of problems. It involves observing readers under natural conditions with reference to what they are reading or how they handle a periodical or newspaper. Data may be collected in library reading rooms, on streetcars, in waiting rooms, and elsewhere. Questions such as the following may be answered

regarding the readers at the moment they are observed: the proportion reading advertisements at all, the comparative frequencies of those reading right or left page, and methods of holding the magazine.

INVESTIGATION OF RETURNS

The foregoing discussion is sufficient to indicate the possibilities of a direct experimental approach to problems of advertising psychology. The second general method, which is used quite extensively by the advertisers themselves, and which may be adapted to psychological problems, is that of investigating returns. It involves arranging some way in which the readers or listeners send back something in response to the advertisement, usually a coupon or a written request. The usual procedure is to have a coupon in the corner of the advertisement, or to announce on the radio that listeners will receive some particular item if they will send in a card, and then observe how many coupons or requests come in as a result of the particular advertisement. If a concern is running copy in several magazines at once, or different copy successively in the same magazine, it is possible to key the coupon by an inconspicuous number in small type in order to identify its source. Some publishers co-operate to the extent of breaking a magazine into what are essentially several editions for the benefit of an advertiser. For example, page 36 may carry an advertisement for a certain food product, but in half the copies of the magazine the advertisement has one layout and in the other half entirely different copy. The data are analyzed usually in terms of number of inquiries in proportion to circulation. The cost per inquiry is often computed, and the proportion of inquiries which led to sales.

This technique is widely used in a test campaign. If a manufacturer is going to advertise on a national scale he often prepares several pieces of copy, runs them in local papers in several districts or in a few typical magazines, and notes which copy brings the greatest proportion of returns. This copy is adopted for the national campaign.

Returns from outdoor displays or cards in streetcars are difficult to evaluate because the advertisements cannot be keyed. Sometimes a concern goes to the extent of securing inventories of its product in an entire district before and after a campaign and com-

paring the change with the corresponding change in a previous period between inventories of the same duration but with no campaign. This procedure is cumbersome and expensive, and reflects the effect of all forms of advertising in that vicinity. It also has certain sources of error in that an increase or decrease in sales for particular commodities may be due to factors other than the advertising. One of the test stores may stage a sale of its own, or some near-by store not included in the test may do so. The activities of sponsors of kindred products may have an effect. For instance, if the town is given a full-page advertisement of "hot lemonade for colds," the sixty-line nose and throat nostrum advertisement under investigation has little chance to demonstrate its normal effectiveness.

Difficulties. So far as psychological problems are concerned, the difficulty with this procedure of getting returns is that it does not analyze the advertisement in sufficient detail. The test campaign does reveal that one advertisement brings more replies than another, but it does not indicate whether this was due to its size, to its color, to the picture, or to some other variable. The scientist is concerned not merely with which advertisement gets the most replies; he wants to know why it received them. He is interested in analyzing these variables in detail as to their relative contribution to the attention value or to the interest of an advertisement. In the usual test campaign, the two copies that are tried do not differ with respect to a single variable such as color, but may have different headings, different texts, and different pictures. When one does produce more effect than the other, the result cannot be attributed to any particular aspect of the advertising. Therefore, from a scientific point of view, rather meager contributions are received from this method of investigating returns.

Another difficulty with the returns method as contributory to scientific problems is the rôle played by the nature of the coupon itself. If it is given a very subordinate place, the returns do measure essentially the interest aroused by the advertisement. But very often the coupon itself is designed with a view to its attention value. Perhaps it is displayed conspicuously or with some artificial device like a large arrow pointing to it. Then it is impossible to tell how much value to ascribe to the layout of the advertisement in general and how much to the coupon. Again, in some coupons the blank space is so small that the average individual could not write a

legible signature and address with ordinary writing equipment. A random collection of signatures has been measured, likewise the length of the signature space in a collection of coupons. With full-page advertisements in standard-size magazines only twenty per cent of the spaces were as long as, or longer than, the average signatures. For half-page advertisements practically none of the spaces equaled the average signature length.¹ In such a case, even if the reader notices the advertisement and is impressed favorably enough to start to reply, he may be blocked by the diminutive dotted line and give up.

Still another variable is the strength of the inducement offered to those who reply. One advertisement may make a strong appeal to the reader, so that later he will purchase that very commodity, but the coupon gives him no very definite reason for replying at this juncture. Another advertisement may have little interest for the reader as an ultimate customer but he is eager to secure some little gadget which is offered in the coupon. A sufficiently alluring free offer will pull many inquiries no matter how bad the rest of the copy may be. The replies in the above cases would indicate exactly the reverse of the truth so far as the selling value of the advertisement was concerned. Then there is always the menace of the habitual coupon-clipper and of the children who are furnishing toy stores or doll houses.

A study was made of the nature of the coupon itself in influencing replies.² If the replies to a coupon with a free offer are given an index of 100, coupons charging for the article score 56 and advertisements making an offer but including no coupon at all, 26. Again, if the power of an offer of a booklet is taken as 100, a free sample offer scores 153 and a recipe booklet 138. In another campaign an offer of a booklet brought 560 inquiries, whereas an identical advertisement but with an offer of a free sample of soap and ointment brought 5000, when factors such as season and location were smoothed out. Obviously the inducement is a factor to be considered, and an advertisement featuring a booklet, for example, is not comparable to one offering a sample. Prospects differ individually in their preferences. A bar of yeast and a copy of the radio address may vary in their appeal according to the gastronomic or

¹ Poffenberger, A. T. "The Return Coupon as a Measure of Advertising Efficiency," *Journal of Applied Psychology*, 1923, 7, 202-208.

² Link, H. C. *The New Psychology of Selling and Advertising*, p. 130. New York, Macmillan, 1932.

intellectual interest of the listener. The only thing certain about the method is that it measures the inquiry-producing power of the advertisement as it stands. How much this is due to some feature of the advertising layout, how much to the nature of the coupon, and how much to the inducement offered we cannot say. It would be possible theoretically to keep all aspects of the coupon and the offer constant and then vary only one aspect of the advertisement. But this is not done in the ordinary course of business. The other alternative is to amass a very large amount of data and trust that these extraneous variables will cancel each other in the averages. Such a program, however, requires a good deal of faith.

So the method of returns, as ordinarily administered, does not lend itself especially well to psychological problems. This difficulty does not detract at all from the fact that the procedure may answer the advertiser's immediate problem as to which of two pieces of copy will secure more inquiries. There are empirical indications that the method is prognostic of sales resulting from the advertisement. In one comprehensive analysis made by Starch,^{*} returns were obtained from 143 advertisements including some 78,000 inquiries. With as large a sample as this, many of the unwanted variables will cancel out in the averages. If the advertisements are ranked in order of merit on the basis of inquiries and then ranked likewise on the basis of sales, a fairly close relation is found. The advertisement which brought the most inquiries was second best in sales, the second best in inquiries was first in sales, the third in inquiries was also third in sales, and so on. The actual relation is represented by a correlation coefficient of .82.

Correlation Technique. For the benefit of readers unfamiliar with statistical procedure, a brief digression regarding correlation coefficients is in order. Such coefficients are computed to indicate the closeness of relation between two variables that are under investigation. One of the simpler methods involves ranking each variable and computing the differences in rank. In the present case the advertisement with the most inquiries would be numbered 1, that with the next most inquiries would be 2, and so on. Similarly, the advertisement that yields the most sales is ranked 1, the next in order 2. Thus, for each advertisement there are two numbers representing its rank in the two variables. The difference between each pair of ranks is then computed. If these differences in rank are

^{*} Starch, D. *An Analysis of Over Three Million Inquiries*. Cambridge, Mass., 1927.

small it is obvious that the variables are closely related. They are substituted in a formula,² the theory and derivation of which need not concern us here, to give a correlation coefficient. Suffice it to say that the larger the differences the smaller the coefficient. If all the differences were zero, that is, if the advertisement that had the most inquiries had the most sales, and so on down to the one that had both the fewest inquiries and the smallest sales, the ΣD^2 term would equal zero and the formula would yield 1.00, which constitutes a perfect correlation. Likewise, if the advertisement with the most inquiries had the fewest sales, the one with next to the most inquiries had next to the smallest sales, and so on, a perfect negative correlation of -1.00 would be obtained. If no relation at all existed, the coefficient would be approximately .00. Standard practice carries the answer out to at least two decimal places. Other more complicated and statistically more desirable formulae are available, but the foregoing suffices for our present consideration.

The interpretation of coefficients of different magnitude is a bit difficult for one unfamiliar with statistics. It is necessary to divorce oneself from any notion that the coefficients represent percentages of something, that is, that a correlation of .50 represents 50 per cent or is half as good as a correlation of 1.00. Such is far from the case. An adequate interpretation involves probability theory, but a hint can be given here. Suppose two variables are somewhat correlated and it is desired to predict one from the other—for instance, from the number of inquiries obtained by some advertisements, to predict their individual sales. If the two variables are highly correlated, this prediction can be made with some validity, but a certain amount of error is to be expected. It is possible to determine the error of this sort involved in predicting one variable from the other when they possess a given degree of correlation. It is also possible to determine the error that would be obtained in prediction if there were no correlation at all between the variables, that is, if we were substantially guessing. One can then compute the percentage by which the given correlation makes it possible to reduce the predicting or forecasting error that would prevail if the correlation were zero. This forecasting efficiency for a few typical values of the correlation coefficient is given in Table 2. A correlation of .50, for example,

² $r = \frac{6 \Sigma D^2}{N(N^2 - 1)}$ where ΣD^2 represents the sum of
 ber of pairs of measures included.

TABLE 2. FORECASTING EFFICIENCY OF VARIOUS DEGREES OF CORRELATION

Correlation Coefficient	Forecasting Efficiency (per cent)	Correlation Coefficient	Forecasting Efficiency (per cent)
.10	$\frac{1}{2}$.70	29
.20	2	.80	40
.30	5	.90	56
.40	8	.95	69
.50	13	.98	80
.60	20	1.00	100

reduces the error of prediction thirteen per cent over what it would be if there were no correlation at all, while a perfect correlation obviously reduces it 100 per cent. If we apply the formula used in computing the table, our coefficient of .82 between inquiries and sales has a forecasting efficiency of 43 per cent. This means that in predicting sales when inquiries are known, in the long run 43 per cent less error will be made than if efforts are made to predict sales on the basis of something that has no correlation with sales, that is, if the prediction is a sheer guess. Statistically speaking, this correlation of .82 represents a fair relation between inquiries and sales. In a much less extensive study a correlation between coupon returns in small circulation media and subsequent sales was .65, whereas the correlation between sales and rankings by a consumer jury was only .05.¹

HISTORICAL METHOD

The third general method of approaching advertising problems may be termed historical. It consists essentially of taking a particular advertising principle and tracing it back through earlier issues of some advertising medium. For example, if the problem concerns the effectiveness of pictures, some particular magazine is analyzed as to the proportion of the full-page advertisements in the January, 1900, number, which carried pictures. The same thing is done for January, 1901, 1902, and so on down to the present. If it is found that the proportion of pictures has been increasing through the years, it can be assumed that pictures constitute an efficient advertising device, since advertisers who use pictures and find their copy is successful and brings business are inclined to continue to use pic-

¹ Groesbeck, K. "Copy Testing as Seen in the Spotlight of Hard Times," *Printers' Ink*, August 18, 1932, 160, 3 ff.

tures. Again, if the trend with reference to the use of the comic in advertising is traced in the same way and a decrease is found in the proportion of the advertisements which contain jokes, it may be concluded that humor in advertising has not been found to be effective. It is essentially a question of the survival of the fittest among advertising devices. A practice that has persisted through the years must have been valuable, and *vice versa*.

CHAPTER III

THE PROSPECT'S WANTS

BEFORE spending money in developing a market it is advisable to make a rational decision as to what to put on that market. When this is done it represents, in a way, a shift in emphasis from former practice. The earlier marketing philosophy involved inducing people to buy what had been manufactured. The tendency which is beginning to appear at present is to manufacture what the people will want to buy.¹

THE EARLIER PSYCHOLOGY OF SELLING

Until recently, thinking and scientific planning regarding the selling process began after the product had been manufactured and prepared for the market. Efforts were then made to sell this product, whatever it was and whatever the prospect's attitude or needs might be. It was believed that the sale would be consummated if the right tactics were used and the proper kind and degree of pressure exerted. The aid of the psychologist was enlisted in applying this pressure. The cruder manifestations of this point of view were typified by the vender of snake oil who, after using his primitive ballyhoo to sell his product, hastened across the county line ahead of the sheriff or the mob. But even in the modern era of higher standards and practices there still prevailed this effort to market whatever was on hand. In the field of personal selling, stress was laid on the personality of the salesman and he was "pepped up" by conventions, form letters, and courses. The aim was to develop a man who could sell anything. This was the drummer of a generation ago with his breezy manner, his glib conversation, his stock stories, and his pocket full of inexpensive cigars. More recently, supplementary devices have been developed such as trade-in inducements and installment selling. In the advertising field a similar tendency is manifest. Effort is made to find certain infallible devices which if incorporated in an advertisement for almost any-

¹ This point of view is elaborated to a greater extent in Link, H. C., *The New Psychology of Selling and Advertising*. New York, Macmillan, 1932.

thing will induce purchase. Some advertisers have believed that the picture of a beautiful woman would arrest the reader's attention and sell him anything from chewing gum to farm machinery. In later pages we shall see the fallacy of such utter generalization.

As the advertising agencies developed they frequently adopted the foregoing point of view. "We will sell your product," they said, regardless of what the product was and whether the public wanted it or could be induced to purchase it. The manufacturer yielded to this importuning and decided to let the agency do it. If he took it into his head to launch some other product, he would simply pass the selling problem along to the agency and forget about it himself. These policies led to an uncritical acceptance of the now rather trite slogans such as "Keep your name before the public," or "It pays to advertise." The unfortunate implication was that it paid to advertise *anything*, and the result was a considerable amount of wasted effort in trying to sell things which the consumer did not want, with no preliminary consideration of his desires and preferences.

SHIFT IN EMPHASIS

Consumer's Wants. In contrast with the effort to sell anything which has been produced, there is a growing tendency to temper this enthusiasm and give some consideration to the desires of the public. This approach does not oversimplify the problem, but it pushes it one step farther back toward simplicity. Scientific devices and research still have their place in consummating the sale, but they have the initial advantage that the efforts are devoted to selling something for which there is already some degree of desire. In such a program one is confronted with the shifting character of human wants and the student of the buyer's behavior must keep everlastingly alert to note such changes. An outstanding example is fashion in clothing, which one year demands light-tinted hosiery and the next sun-tan. Selling literature used to talk about breaking down sales resistance. Now the tendency is to avoid sales resistance by seeking channels where it does not exist and by discovering articles for which there will be a minimum amount of resistance.

This practice of determining the consumer's wants is essentially a consideration of mental aspects, and is to be distinguished from the investigation of the consumer from the economic standpoint. The

latter procedure, sometimes termed "consumer engineering," involves gathering data regarding such things as buying power, income, and population distribution, and is a moot problem for a manufacturer about to launch a product or exploit a new market. However, it is an economic rather than a psychological problem and will not concern us in the present discussion, which deals merely with the consumer's wants.

The point of view of a modern concern which maintains a Customer Research Division is worth quoting: "If a company can ascertain concretely and in detail just what its buyers would like to have, if it can build its product in conformity with those desires and design its sales and advertising messages so that they will definitely answer the questions that are uppermost in the minds of motorists, obviously there will be a continued improvement in the merchandising processes and a broadening of the service record." This statement epitomizes the philosophy under consideration and lays the final emphasis on service and good will. This point of view does not involve giving the public "what it wants" in the invidious social sense which causes frequent criticism of the press and the cinema. Usually it is the customer's convenience which is involved, as, for example, the addition of a tab so that a cellophane wrapper may be more easily removed. There is here no moral problem to be considered.

Greater Sales. In the light of the above discussion it is scarcely necessary to justify the shift in emphasis from the manufacturer's to the consumer's desires. The most obvious justification is that if the consumers do not want the product they will not buy it to the extent to which they will purchase a desired article. Many a product has been manufactured and the advertising done only to have that product fade into oblivion on warehouse shelves. To be sure, it is possible sometimes to market a commodity in the face of public apathy or even to create a new attitude, such as the desire for cigarette lighters or for yeast cakes, but these cases are exceptions rather than the rule. Many a concern which keeps a careful record of sales of different brands or varieties of its product will note an unmistakably greater number of sales for the varieties which apparently conform to the consumer's desires.

Customer's Satisfaction. Suppose, however, that persons do purchase a commodity which is not in conformity with their initial desires. Sometimes they will keep it and perhaps be satisfied

ultimately after using it. In many instances, however, they are dissatisfied to the extent that they return it. Many stores find it necessary, in the interest of maintaining good will, to be liberal in accepting returned goods, and they have considerable financial loss as a result. Some go so far as to follow the policy that "the customer is always right," even though customers occasionally take unfair advantage of this liberality. It is estimated that the losses which department stores suffer from returned goods are often as great as their entire advertising expense.¹ Obviously much of this loss is due to the fact that the purchaser did not want the item originally but had been induced to buy it. Initial effort to find what kind of article he wanted and to provide that for him would have obviated some of the difficulty.

Some customers do not return the undesired article which they purchased unwittingly but keep it and nurse their dissatisfaction. If a few purchases from a given store prove disappointing one easily loses his favorable attitude toward that store in spite of the hundreds of purchases which were entirely satisfactory. A manufacturer cannot afford to let an unfortunate experience occur in connection with one of his products, for that unpleasantness may become associated with the trade name, work against all his other products, and nullify his advertising and selling efforts for a period of years.

DETERMINING THE CONSUMER'S DESIRES

Brand Preferences. Surveys may be valuable in obtaining information concerning the customer's wants. Some of these surveys are carried out by a disinterested party, such as a newspaper which seeks data to pass on to its advertisers, while others are conducted by a manufacturer who is interested in problems concerned with his own product. One type of information which is frequently gathered in such surveys is the preference for various brands of a particular product. A typical example is the survey conducted annually in the Greater Milwaukee market by one of the newspapers.² About three per cent of the families in the area are questioned by means of house-to-house interviews. The women are questioned as to their uses of, and preferences for, such things as packaged coffee and tea, corn and wheat breakfast foods, sauer-

¹ Link, H. C. *The New Psychology of Selling and Advertising*, p. 15.

² Anon. "Brand Preferences in Milwaukee," *Advertising and Selling*, June 6, 1935, 20, 38 ff.

kraut, tooth paste, automobile tires, and safety razors. A few of the trends in brand preferences are shown in Table 3.

TABLE 3. PERCENTAGE OF USERS OF A PRODUCT PREFERRING A CERTAIN BRAND

		1934
Cream of Wheat, Puffed Wheat, and Shredded Wheat	84	62
Wheaties.....	0	22
Hellman Mayonnaise.....	41	20
Kraft Mayonnaise.....	16	41
Jello.....	76	59
Royal Gelatin.....	7	15
Pepsodent mouth wash.....	0	18
Listerine.....	61	49

Two years only are selected in order to show the possibility of changes in preference with the lapse of time. The first column gives the figures for 1929 and the last column those for 1934. With wheat breakfast food, for example, at the outset 84 per cent of the housewives preferred Cream of Wheat, Puffed Wheat, or Shredded Wheat, but this percentage decreased to 62 in the course of five years. On the other hand, Wheaties was non-existent in 1929 but jumped to the point at which it comprised 22 per cent of the preferences of the housewives. The remainder of the table gives similar shifts in preference with reference to mayonnaise, gelatin, and antiseptic mouth washes. These changes in preference reflect the quality of the product and the advertising or marketing campaign. While an increase in preferences revealed by such a survey does not necessarily indicate a corresponding increase in purchase of the product because of old buying habits or financial considerations, nevertheless the results are worthy of the manufacturer's attention. They may point toward the future and enable him to make a deliberate effort to alter the preferences or to make adjustments to them.

Qualitative Differences in Product. Another type of information yielded by these surveys is qualitative differences in the product. The manufacturer may be sure that there is a market for his product, but he does not know just what kind or variety is most desired. A mail-order house, for example, was uncertain as to the type of program that was most desirable for its morning broadcast. It set out to obtain the answer experimentally.² A contest was announced which required the participants to listen to the programs for four

² Nicholas, G. A. "When the Customer Selects the Radio Program," *Printers' Ink*, August 20, 1932, 150, 10 ff.

weeks, to make a first and second choice as to their preferences, and then to write a "best letter" supporting these preferences. A key word was included in each broadcast so that the contestants had to listen in, and consequently were actually exposed to the program for that period. Four types of programs were run for a week each: an orchestra, a family skit, "Spirit of Progress" minstrels, and "beautiful thoughts." Out of 7000 replies the largest number of first choices went to "beautiful thoughts," and this type of program was adopted. If the sample of the contestants was typical of the morning audience, it is probable that this broadcast would be more successful than any of the other three types which were under consideration.

A similar problem confronts the producers of cosmetics. It may be possible to secure most of the desired information by watching carefully the sales records or by taking periodic inventories. One manufacturer in this field found that the demand was concentrated on only 20 per cent of his shades of face powder. In other words, his product was about 20 per cent correct. By recalling the powders not of the desired shade and texture he succeeded in making the product about 90 per cent correct.¹

Suitable Packaging. Considerable attention has been directed in late years to the artistic qualities, the attention-arresting value, and the convenience of packages. When introducing modifications along these lines it is well to ascertain in advance whether or not users will appreciate the changes. Before Bon Ami put out its deluxe package, it interviewed 5000 women to see if there was a need for such a package and what form it should take. Similar investigations have been made prior to the introduction of handy containers from which the contents may be poured. Such problems were considered as the size of the container relative to the hand of the user and the place in which it presumably would be kept.

Aspects Causing Preference for Product. It is often desirable to ascertain what characteristics of the product are of particular interest to the consumers, so that still more of these factors may be included, if feasible, in the product. This information may also make it possible to feature in the advertising those same aspects of the commodity.

A survey conducted by the Psychological Corporation with reference to electric clocks revealed that the public had very little

¹ *New York Times*, May 17, 1931.

interest in the synchronous motor or the master oscillator at the power house which assured constant frequency for the alternating current. People were much more concerned with the accuracy of the timepiece and the elimination of the annoyance caused by a clock that stops when the owner forgets to wind it. Taking their cue from these findings, the advertising department featured people missing transatlantic steamers or transcontinental airplanes because of the inaccuracy of the non-electric clock, with the suggestion that such catastrophes might have been avoided by the use of the electric model.

A manufacturer of sheets was much surprised when a customer wrote him that they were not long enough to tuck around the mattress and that the feet protruded every night. He did not believe it but took the trouble to measure a standard mattress and also to interview a sample of users, and was surprised to find a confirmation of the judgment of the original complainant. As a result he is now making longer sheets and his sales are increasing. Another manufacturer of cooking fat was stressing its efficiency in making biscuits. Some consumers indicated, however, that it did not work so well when they mixed the dough the night before and kept it in the icebox. Thereupon the manufacturer set out to revise the product so that it would be more satisfactory when kept overnight at low temperature.² Mentholated cigarettes were devised originally as a relief for colds, but 20,000 replies to a contest indicated that the coolness was what impressed most users. Consequently that aspect was featured in subsequent advertising.

Buying Habits. Allusion was made above to the fact that people often purchase as a result of habit rather than of actual preference for a particular brand. It is this tendency which brings one's feet into a familiar store although he has been led to believe that some competitor is actually superior. It was suspected that principles of this sort were operative in the field of automobile supplies, such as gas and oil. A survey regarding lubricants was conducted to ascertain not merely the type of oil used and the reasons for it but also the reasons for the selection of a particular station. A further question was whether the consumer purchased gasoline at the same station at which he bought his oil. When this was the case it was discovered that sometimes the lubricant dominated the choice of the station, and sometimes the gasoline. Similar results were obtained

² Riley, W. J. "What Customers Can Tell You," *Nation's Business*, December, 1932, p. 50 ff.

in a study of the market for vinegar. The interviews revealed that people bought vinegar either on the advice of the dealer without any deliberation or because of mere habitual buying of a particular brand. This finding indicated the futility of devising slogans or of presenting particular selling points in advertising the particular brand. The manufacturer shifted to simple and impressive repetition of the brand name and found this advertising more successful than his previous copy.

GENERAL TECHNIQUE

Questionnaire. A number of technical problems arise when making a psychological survey of consumers' wants. Systematic plans should be made for the collection and interpretation of data. For this purpose it usually becomes necessary to employ the ubiquitous questionnaire. Sales records and periodic inventories contribute some information, but when it is a question of the consumer's subjective feeling, the only available method is to ask him about it. At one time the questionnaire was inflicted only on persons who represented some institution, for example, school superintendents or prison wardens. At present the housewife and the business man are no longer immune. The earlier inquiries were justified in the interest of education or social science and the present ones in the interest of business. If the person being interrogated is impatient or has been surfeited with questionnaires, his responses have little value. He will adopt a serious attitude and will co-operate until such time as the interviewers have covered the same territory repeatedly.

Statement of the Problem. The first step naturally is to state the problems which it is desired to solve. These problems are fairly obvious from the discussion in the preceding section, but they will vary from one industry to the next and from one commodity to another. It may be some simple problem such as what household appliance the consumer expects to buy next or to what radio programs he listens most frequently. Usually the problem is more complicated, such as whether the consumers want the product at all, or, if they do, what kind or variety they prefer, or what characteristics of the product most appeal to them. At any rate, the development of the procedure for consumer analysis is contingent on this initial statement of the problem.

Formulation of Questions. The next step is to formulate a tentative list of questions directed toward the problem as stated. This initial step is the same for printed questionnaires and for personal interviews. Typical questions might include the brand of the product the consumers are using and why, the various ways they use it, how much they use, and what objectionable features they find in it. It is advisable to distinguish questions that call for facts from those that call for opinions. Both may be necessary, although greater significance may be attached to the former. After the questions are formulated it is well to try them out on a small group of persons in order to discover ambiguities and misunderstandings. The psychologist encounters this same difficulty when giving mental tests. It is often surprising that a statement which seems perfectly lucid and unequivocal to the one who made it will have a double meaning for others. Two persons reading the same sentence may accent different words and derive widely different meanings, so that an interviewer may produce quite divergent effects by his verbal emphasis. The only way to discover these possible sources of error is to try out the questions on a small scale. After ambiguities and misunderstandings have been eliminated, one may proceed with the actual administration.

MAILED QUESTIONNAIRE

Of the two techniques for securing answers to the questions, the simpler from the standpoint of organization is the mailed questionnaire. If an adequate proportion of replies can be obtained and if this sample is typical of the market which one desires to reach, the problem may be solved without the necessity of organizing and training interviewers. However, inasmuch as the procedure is inflexible and since it is impossible to follow up one question with another which seems pertinent on the spur of the moment, it is especially important to work out carefully the wording of the questions.

Wording of Questions. The simplest form of question is categorical, requiring the answer "yes" or "no." The difficulty with this procedure is that it makes no allowance for degree of preference. The manufacturer might be interested in what kind of radiator the consumer really would prefer, whereas the blank would reveal only that he did not want the V-type. If the choice between the two

alternatives is entirely unambiguous and no further qualification is desired, the yes-no response is satisfactory, but otherwise it falls short. Another difficulty is that the disinterested recipient finds it easier to make answers at random than in the multiple-choice form described below in which he might make himself appear foolish by carelessness.

A second technique involves multiple-choice items in which the recipient selects one of several alternatives, for instance, "What kind of breakfast food do you prefer: corn — wheat — oats — rice?" The greatest difficulty with this method is that the alternatives may not be exhaustive. It is conceivable that the subject might prefer some kind of breakfast food that was not listed or he might have some additional preference regarding the method by which it was prepared. It is possible to demonstrate experimentally the inaccuracies of the multiple-choice form when the choices are not exhaustive. On one occasion students were asked to list the advantages and disadvantages of fraternity life as they had seen it. A multiple-choice question was then formulated with 15 of the most frequent answers and was given to other students. The results agreed fairly closely in the two series. Then, another multiple-choice blank was provided with the five most frequently selected answers omitted but with blank spaces in which the subject could write additional alternatives. Under these conditions an answer that had been marked 52 per cent of the time originally, but was now omitted was written in for only 14 per cent of the blanks. Another item dropped from 41 to 8 per cent. On the other hand, some of the less frequently chosen items in the first list increased markedly in the second. One, for example, rose from 24 to 79 per cent and another from 16 to 61 per cent. Obviously, when the alternatives are restricted, even though the subject has the opportunity of writing in additional ones, a definite source of error is introduced and the final results are misleading.¹

A further type of question, which is more difficult for the subject, involves weighting the items. He might, for instance, be given a list of radio programs and asked to distribute 100 points among them in such a way as to indicate his comparative preference. Instructions for such a procedure would be difficult to convey to the average recipient of the questionnaire. He might be able to rank the programs in order, but that is a method which involves the necessity of assuming that the differences between the successive ranks are

¹ Jenkins, John G. *Psychology in Business and Industry*, p. 350. New York, Wiley, 1935.

equal. It is conceivable that position number one might be far superior to any of the others, although this fact would be obscured by the ranking procedure.

Another method is the free expression of opinion in which the person states his desires without conforming to any list of stipulations. "What kind of coffee do you like best and why?" This procedure is often valuable in the early stages of developing a questionnaire and may uncover various clues which may be followed. For instance, a concern was asking about how to package flour, and somebody said "make it in biscuits." The result of that casual remark was the whole industry of packaged flour for making biscuits. This method, however, is inadvisable for the final form of a questionnaire because it does not lend itself to quantitative treatment of the results.

Insuring Adequate Return. An aspect of the questionnaire technique that is always disappointing to those administering it is that only a small percentage of the questionnaires sent out produce replies. The percentage returned varies widely in different studies. A recent questionnaire sent by a broadcasting corporation, asking for the stations to which the recipients listened most frequently, yielded about a 20 per cent return in some of the Eastern cities. This figure is high in comparison with many other projects. The failure to reply to a questionnaire is quite understandable. It may not have attracted the recipient's attention at the outset and may have entered the wastebasket as just another advertisement or form letter. Other persons lay the blank aside for future consideration and simply neglect it. Answering and mailing a questionnaire always involves a certain amount of inconvenience, especially if it calls for a considerable number of responses. Then, there are many recipients who have received previous questionnaires and have developed a hostile attitude toward the whole practice. At any rate, an advertiser using this method for research should give careful consideration to finding a program which will insure a reasonable return for his investment. In order to secure an adequate number of replies, it is often necessary to pay a rather large bill for postage.

Various devices, somewhat psychological in character, may be employed in order to increase the proportion of recipients who return the questionnaire. Something may be done in the preamble or letter of explanation. In some cases appeal is made to the recipient as a leading citizen or as a person typical of some respected class,

thus using mild flattery to stimulate interest and co-operation. In other cases it is possible to state the problem frankly and to ask for his help, pointing out also that it will take only a brief time on his part. If the sender represents an educational institution or is a student, a certain degree of *rapprochement* is established by that fact. In the business field, however, the questionnaire is often sent out under an ambiguous name, such as "Radio Research Bureau," which makes the personal touch more difficult to obtain. Another possibility is to offer the individual a free souvenir if he will co-operate. Sometimes the questionnaire comes as a follow-up to a free sample that has been requested. The sample itself may have an enclosure asking for a few items of information. The person having just received the sample will feel a slight obligation to co-operate by returning the desired information.

A device which may create a favorable attitude toward the questionnaire and result in more returns is to liven it up by the mere design of the blank. A good technique is to include thumbnail sketches of the items involved, possibly with a humorous aspect. The average reader who might completely ignore a printed questionnaire is intrigued for a moment by the pictures, and may linger long enough to become interested and actually fill out the blank. Pictures make a very strong bid for the reader's attention (cf. Chapter XIV). For example, a little booklet sent out by General Motors sought information about various features that the consumer would like to find in his next car. It was suggested in the introduction that if he didn't have time to fill it out right now, he might stick it in his pocket, and that it might come in handy while he was waiting for dinner. When asking the recipient which style he liked for the front of the car, instead of employing mere words he was shown pictures of five different types of radiators, with an additional blank space in which he could sketch any other design which occurred to him as desirable. On another page the reader was asked if there was anything on the car that he would change if he were redesigning it. A number of things were listed such as arm rests, assist cords, ash trays, battery, brakes, each of which was represented by a thumbnail sketch in the margin. A questionnaire regarding habits of listening to the radio employed similar sketches and also introduced a mild degree of humor. An item dealing with what the person did while the radio was turned on listed eighteen co-listening activities which were to be checked. At the top and

bottom of the page were sketches of a woman at a washtub looking over her shoulder at the radio, and of a man in a bathtub attempting to tune in a station. The question in multiple-choice form as to what types of radio programs were preferred carried pictures of a crooner and of an overweight woman taking setting up exercises. The portion of the blank in which the person could write the things that irritated him most was accompanied by a sketch of someone about to hit the radio with an ax. These little sketches took away some of the annoyance that one might experience in filling out the questionnaire. Such a procedure should insure a higher percentage of returns.

Attitude of Those Who Reply. In evaluating the results of a questionnaire one must give some consideration to the possible factors which differentiate those who reply from those who do not. It is conceivable that most of those who reply are unemployed or hypochondriac or adolescent or senile, and thus constitute a special group which is not typical. This source of error is especially serious in the questionnaire dealing with a controversial issue. If it asks, for instance, whether one agrees with the policies of the existing political order, those who do agree are inclined to take it for granted, whereas those who feel a strong opposition are quite likely to take this opportunity to express themselves. In the advertising field, questionnaires seldom involve controversial issues. At any rate, the recipient's prejudices or social attitudes are liable to determine whether or not he replies. Then there are the persons who take the thing somewhat as a joke, particularly if the preamble which appeals to them as leading citizens is a little overemphasized. It may be possible, however, to include certain items in the blank which will detect this fact, providing the person does not reveal it by more obvious nonsensical replies. Even in administering mental tests, such as tests of preferences and interests, "jokers" are sometimes included in order to give the person who is not taking the thing seriously a chance to manifest that fact. Another possible difficulty is the fact that some of those who send in a reply may take it too seriously. People are becoming advertising-conscious these days, so that it is often difficult to secure a spontaneous natural reaction. If one is asked his preferences regarding a commodity he may rationalize and give what he thinks is the best or the most socially acceptable answer rather than the one that characterizes him. Persons have been known, for example, to state that they preferred

classical music on the radio, whereas an objective check revealed that they listened primarily to other types. The difficulty for the advertiser is that he has no check on the attitude of the persons who reply to the questionnaire, so that he does not know whether his sample of respondents is really typical of the market he is interested in reaching; furthermore, he is not even sure that the replies represent the persons' real convictions or preferences.

Radio. The information is occasionally sought in a verbal announcement by radio. This is an expeditious technique and, if adequate inducement is given, a large enough number of replies may be secured. Answers to only one or two questions can normally be obtained in this way, however, and there is a serious possibility that the listeners will misunderstand the question. Information may be obtained similarly in a printed advertisement by means of a coupon. Here again there is a definite limitation on the amount of material that can be included in the coupon.

INTERVIEW TECHNIQUE

Advantages. The foregoing shortcomings of the mailed questionnaire have led many investigators to adopt the more difficult and expensive procedure of conducting interviews in order to analyze the wants of the consumers. The advantages of the interview over the mailed questionnaire have been suggested in the preceding discussion. The sampling can be more accurately controlled. A specific number of persons in each city block may be included or certain districts can be selected on the basis of estimated average income. It is feasible to select persons of a certain age or racial group or to base the sampling upon almost any classification that is desired. It is always possible to continue interviewing until a large enough number of such replies has been secured. It is also possible to control the attitude of the person interviewed by directing the conversation in such a way as to secure adequate attention and co-operation. If this cannot be done it is possible to make due allowance, presumably by rejecting that interview altogether and by getting another one in its place.

Another advantage of the interview is its flexibility. Although it is desirable to have certain problems to which the answers are sought and certain questions which will be applied in standard form, nevertheless, a skilled interviewer will secure cues which he

may follow on the spur of the moment. His problem is analogous to that of the psycho-clinician who administers a standard test but secures much incidental information by the way the person takes the test and by asking certain additional questions. In the same way, the interviewer may supplement his standard procedure with further questions when the subject gives a suggestive clue.

A third advantage of the interview is the possibility of a more adequate investigation of its reliability. It is possible to check one interviewer against another in order to determine the reliability of the interview technique itself. If two interviewers are questioning similar consumers, a fair degree of agreement between the results should be expected. If there is gross discrepancy it is well to look for the cause and to attempt to remedy it. The supervisor may accompany the interviewers on occasion and attempt to discover the reason for the discordant results. When the difficulty has been analyzed it is possible to incorporate items in the training program which will counteract this difficulty.

Personnel. Efficiency in interviewing, as elsewhere, depends on the aptitudes and the training of the personnel. The problem has not been studied to the extent of developing tests of interviewing aptitude analogous to tests for clerical aptitude. Such tests would involve the field of personality, in which testing is more difficult. The interviewer presumably needs a reasonable degree of intelligence and of scientific integrity. He must be able to get along with people and to secure their co-operation without antagonism and take an occasional insult gracefully. Many surveys have been conducted by bureaus connected with educational institutions and have utilized college students in schools of business as interviewers. This type of personnel would, on the whole, be well adapted for this type of work. They represent a selected group on the basis of intelligence because the college population is considerably above the average of the general population in this respect. They would have an interest in the problems under investigation and would consider the program as a part of their own training and, consequently, would take it seriously. On the other hand, persons who have a reasonably acceptable personality, and who have had extensive training and experience, would be superior to any of the beginners in spite of the greater interest and enthusiasm on the part of the latter.

Training of Interviewers. After selection has been made of the personnel to conduct the survey, a modicum of training is necessary.

Persons who have had experience in the psychological laboratory or clinic bring to this work a background which is helpful. In dealing with people in laboratory or clinical situations one learns to note the little incidental items of behavior that may be rather diagnostic, to follow up a clue that has been dropped incidentally, and to suspect some of the motives or emotions behind the externally observable behavior and remarks. One important thing that the interviewer must learn is to establish rapport. The success of an interview, like that of a clinical examination, depends on the establishment of the proper attitude on the part of the subject. A clinical examiner with a timid or hostile child, for example, has a very serious problem of establishing co-operation. He enlists the child's interest by talking about extraneous things until he finds some field in which a cordial response is secured. He follows that line farther, whether it be something pertaining to play or to some hobby, till the subject begins to talk freely and has apparently some confidence in the examiner. Then he begins with the more crucial part of the examination. In the same way, an interviewer must lead up to the crucial items in such a way as to secure rapport. Some initial training along these lines is necessary for interviewers who have not previously had clinical or laboratory experience of the sort mentioned above.

In the interviewer's training it is important to impress him with the need for keeping the main questions, which are common to all interviews, standard. It will be shown presently that the wording of the question may have a considerable effect on its tendency to elicit a certain type of answer. A cue may be taken from the Binet test procedure on this point. The questions are asked verbally and the answer is recorded by the examiner. An untrained examiner will not realize the importance of adhering closely to the standard wording. For instance, in one of the problems the subject is shown a picture of a circular field with a narrow gate and asked to draw the path he would follow in hunting for a lost ball in that field. An inexperienced examiner with a general idea of the item may tell the child: "Show me how you would go around in the field and hunt for the ball." The use of the word "around" suggests a systematic spiral arrangement, thus defeating the object of the test, which is to see whether or not the subject will suggest such a procedure himself. A portion, at least, of the interview must be kept absolutely standard.

Form of Question. Such standard questions should be considered

from the standpoint of ambiguity, just as in the case of the mailed questionnaire. Too much variation should not be allowed in the subject's own interpretation of the question. If he is asked, for instance, why he bought a particular brand of tooth paste some of those interviewed may construe that to mean, what influenced them to make the particular purchase, and they will cast about for some advertisement which they read or some statement of a friend which led them to buy the commodity. On the other hand, some persons may interpret the question as applying to the characteristics of the product itself and think of the cool sensation it produced in the mouth. It would be more satisfactory to break the question down into two parts, namely, "What made you buy this brand?" and "Why do you like it?"¹ Similarly, in asking questions as to why a person changed brands of cigarettes, it would be better to ask why he stopped using the old brand and why he chose the new one rather than embodying them in a single question which might be interpreted in either way. A skillful interviewer, of course, could follow the initial response with another question based upon the nature of the individual's interpretation, but it is safer to have the question standardized at the outset so that the less skilled interviewers will still obtain reliable results. A question which is too direct will frequently defeat its own purpose. If an interviewer asks why the person owns a particular car, that direct question will probably bring out a list of rationalized motives about price, service, or economy. An indirect approach would come closer to the fact. The individual might be asked what features of the last automobile appealed to him and what disadvantages he noticed in it. Further questions about what he did with his car yesterday and what he was planning to do with it in the future would reveal other of his real motives. A statement regarding a forthcoming trip or the difficulty he had in negotiating traffic when other drivers made quicker starts than he did would point to pick-up as a determining factor in his own case.

The interviewer should also be aware of the dangers of suggesting the answer to the other party. Many an interviewer in the course of a study will formulate some opinion of his own as to the way the results are coming out, and quite unintentionally influence the subsequent interviews in this direction so as to corroborate his

¹ Lazarsfeld, P. F. "The Art of Asking Why in Marketing Research," *National Marketing Review*, 1935, 1, 26-38.

hypothesis. The difficulty is similar to that experienced by an officer examining a witness of a crime or of an accident. In the effort to clear up the case he injects his own theories into the examination by the way the questions are asked. Although the interviewer would not be likely to utilize a direct question such as "You like this brand of coffee better, don't you?" nevertheless it has been shown that the wording of the question influences suggestibility in a subtler fashion.^{*} In experiments in which the subject was shown moving pictures and then asked systematic questions about different items in them it was found that a negative statement such as "Wasn't there a sailor in the picture?" as compared with the positive statement, "Was there a sailor in the picture?" carried more suggestion. Still clearer differentiation was found between questions in the subjective and objective form. A question in the subjective form, that is, involving the personal pronoun, such as "Did you see a sailor?" was distinctly less suggestive of the non-existent sailor than the question, "Was there a sailor?" If an interviewer is anxious to avoid any element of suggestion in the wording of his questions about doubtful items it would be well to consider the comparative effect of the subjective and the objective formulation.

One other precaution should be borne in mind by the interviewer, namely, the possibility of errors due to his mere verbal emphasis. An entirely different implication to a question may be given in this way. For instance, if the question is raised, "Why did you *buy* this book?" the answer might be that it was not in the library. If the question were, "Why did you buy *this* book?" the subject might reply that it was because he liked the author. If the emphasis was on the word "book" the answer might be that he preferred the book to a theater ticket. The interviewer can establish a different mental set or attitude on the part of the subject by the emphasis which he employs in the question.

SUMMARY

The earlier marketing philosophy involved manufacturing a product and then attempting to sell it regardless of whether or not it was desired or needed. In contrast with this point of view, current policy recognizes the supremacy of the consumer and attempts

^{*} Cf. Burtt, H. E., and Gaskill, H. V. "Suggestibility and the Form of the Question," *Journal of Applied Psychology*, 1932, 16, 358-373.

to provide a type of product which he wants and will be inclined to purchase. The emphasis is shifting from the manufacturer's to the consumer's desires. Initial investigation of these desires increases sales, lessens the amount of returned goods, and promotes good will by developing a group of satisfied consumers.

The determination of brand preferences is a type of information that is frequently sought in such consumer surveys. Another type deals with qualitative differences in the product; for example, shades of face powder or odor of perfume. Packages are sometimes designed in the light of a survey as to the desired size or decorative aspect. It may be discovered that certain features of the product are of paramount interest, and these features may be stressed profitably in subsequent advertising.

The general technique of making a survey of consumers' preferences utilizes a questionnaire administered either by mail or in an interview. The former procedure is simpler from the standpoint of organization. The wording of the questions, however, is more critical, as no individual follow-up of a misunderstood question is possible. The yes-no type of question is unsatisfactory because the manufacturer usually wants more information than can be expressed in a dichotomous reply. The multiple-choice form is better, but embodies room for error if the alternative choices are not exhaustive. Having the recipient weight the alternatives numerically is theoretically effective, but difficult to explain to the average individual. A free expression of opinion may be useful in the early stages of the development of a questionnaire.

The percentage of the questionnaires that is returned is usually disappointingly small, and efforts must be made to increase this proportion. If the sender represents some educational institution greater co-operation is probable. The accompanying letter may embody a bit of delicate flattery. The blank itself may be enlivened by thumbnail sketches to make it a trifle more interesting. The attitude of those who reply to the questionnaire constitutes a possible source of error. Only those with a certain prejudice or a particular interest pattern may return the questionnaire, thus introducing the answers of a non-representative group into the results. Some recipients may construe the blank as an opportunity to exercise their sense of humor, and others, who take it too seriously, may rationalize their replies rather than give their natural reaction.

The more expensive interview procedure obviates some of the

difficulties encountered in the mailed questionnaire. The sampling can be controlled more adequately by interviewing a desired cross-section of subjects. Greater flexibility is possible, as answers can be followed up on the spur of the moment. Reliability can be investigated more adequately by comparing the results of two or more interviewers. Careful selection and training of the interviewing personnel is essential. The latter should involve some consideration of methods for establishing rapport with the subject, and of the importance of keeping the wording of the main questions, which are common to all interviews, strictly standard. The interviewer also should be taught to guard against injecting, through the medium of suggestion, his own opinions into the statements of the person interviewed, and to avoid establishment of an undesired set on the part of the interviewee by verbal emphasis when asking the question.

CHAPTER IV

SUGGESTION

THE preceding chapter emphasized the desirability of giving some initial consideration to what the prospect wants. The next step is to induce him to buy what he wants. Merely making a product available does not sell it except in rare instances. Some appeal or some selling point must be employed. Later, mention will be made of many devices for controlling attention and memory, but after all, the thing that finally completes the sale is the theme or message or appeal of the advertisement. Such appeals may be divided conveniently into two types: short circuit and long circuit. The former may take the form of suggestion or may strive to arouse some fundamental instinct or desire. The long-circuit appeal utilizes a more circuitous procedure by giving information about the product or taking the prospect through a process of reasoning. The present chapter will consider in some detail the mechanism of suggestion and the most effective ways of utilizing it.

NATURE OF SUGGESTION

Suggestion is nothing mysterious. It merely involves keeping a certain idea before a person, to the exclusion of other ideas, and at as high a level of attention as possible, until that idea eventuates into action. Everyone has a fundamental tendency to do anything of which he thinks vividly enough, unless other considerations hinder or inhibit the act. This tendency manifests itself in so-called ideomotor action. For example, if one is sitting quietly with his hand on a planchette — a little platform hung by wires from the ceiling — his slightest involuntary motion may be recorded by a light marker underneath the planchette touching a sheet of paper. If he is sitting passively and something is mentioned which is, for example, at his right, a slight involuntary movement may be noted in a rightward direction. The ouija board operates on a similar principle. The operators place their fingers on the movable member, ask ouija a question, concentrate on the problem, and, knowing that “yes” would be an appropriate answer, involuntarily push toward the

"yes" corner. The same principles are utilized by the clairvoyant who holds the inquirer by the hand while talking about various things, and watches for slight involuntary muscular contractions which he may be able to detect tactually. He throws out various suggestions, and when the victim reacts as though the suggestion applied to his particular case it is followed with others in the manner of the "hot-and-cold" game of locating a hidden object. In this way the clairvoyant can determine whether the client is worrying about business or health or love, and on the basis of this information can make statements which seem to reveal a supernatural insight into his personal affairs. Another instance of suggestion occurs when the salesman at a critical moment removes the cap from his fountain pen and hands it to the prospect. This suggestion makes the prospect think of writing his name, and he is likely to do so inadvertently. The writer always replaces the cap on the pen and hands it back to the salesman. The point is that a person tends to "act out" any idea which he has. Consequently, if some particular idea can be suggested artificially it may be possible to produce the corresponding motion as a result. Suggestion consists in just this procedure of getting an idea vividly in the mind of the prospect, and keeping it there to the exclusion of other ideas until it leads to action.

DIRECT VS. INDIRECT SUGGESTION

Superiority of Indirect Suggestion. Effective use of suggestion in advertising is not so simple a procedure as that just described. To be sure, it is possible to insist continually and obstinately that a person buy a particular thing and thus to produce the desired response. But such a technique is more likely to succeed if applied with finesse rather than by brute force. Most persons resent a blunt command. We like to feel that we are the captains of our souls and that we are doing what we please although, as a matter of fact, we probably are not doing so ten per cent of the time. Consequently, the command to buy a particular brand of tire or to ask the clerk for a certain beverage arouses a bit of resentment. The situation is still worse if the salesman on the magazine page points an insistent finger at us or the life-sized uniformed figure on the poster board with palm upraised like a traffic officer tells us to stop and buy the product. While there are individuals who have difficulty in making up their own minds and who really need to be told what to do, such

persons are distinctly in the minority. The average American resents the blunt type of direct suggestion. A writer familiar with advertising in Germany, however, detects there a greater use of direct suggestion, and hints that its effectiveness may be due to the fact that the people have been accustomed to the dictates of authority to a greater extent than we have in this country.

Miscellaneous Techniques. Various methods are available for avoiding the arousal of opposition that is inherent in the direct suggestion. One of these involves associating the product with someone who appears to have profited by its use. The advertisement for a shampoo preparation shows a woman with attractive coiffure, that for skin lotion displays a pair of exquisite hands, and the page about cosmetics includes some woman who is reputedly beautiful. The commodity may even be named after some person who is noted for pulchritude. This association becomes unfortunate with the lapse of years if the product outlasts the pulchritude. If the reader analyzed the advertisement critically, he might realize that feminine beauty is due to heredity as well as to cold cream, but suggestion does not operate in this manner. It produces an uncritical acceptance of the idea of buying the product and of using it, without issuing any direct fiat. In rare instances it is possible to issue a direct command to do some minor thing while the major suggestion is merely implied and indirect, as in the subtle headline: "Put your wife's initials on a — sedan."

Mere display of the trade name with no definite statements regarding purchase may operate as an indirect suggestion. Many a purchaser finds himself wondering why he bought that particular brand, and subsequently is able to trace the suggestion back to advertisements which he had seen recently but to which he had paid supposedly little attention. Everyone reacts to many stimuli of which he is not actually aware. He pays no attention to the clock ticking, but does notice it if it stops. He finds himself thinking of a fire for no apparent reason, and then notices the distant sirens which had started the process of association before he was aware of them. In the same manner, practically unnoticed advertisements leave cumulative traces which may lead ultimately to a sale through this process of indirect suggestion.

Demonstration and Free Trial. This same superiority of indirect suggestion is manifest when attempting to secure requests for samples or for a demonstration. Some campaigns solicit inquiries

without obligation, whereas others suggest that if a person makes an inquiry he is morally obliged to purchase. A firm had been advertising by implication that it would be reprehensible to take the machine on trial and return it. Later they changed their copy to include the following: "Send for the machine on a free trial. You shall see whether it suits your particular needs. If it does not (and this sometimes happens) there will be no further argument, etc." This latter type of copy produced from 5 to 7 per cent more inquiries than the previous type in which the suggestion was more direct and an effort made to force the prospect to keep the thing if he took it on trial. A phonograph concern had been running copy including a free trial offer which concluded: "Why this offer? Because we are confident you will keep this wonderful instrument." Then they shifted to the following: "We will send this phonograph to your home on a free loan. Use it as your own; give concerts. We will thank you for having thus advertised the — in your neighborhood. Of course, if you want to keep this instrument you may pay — per month." This latter type of copy received 25 per cent more inquiries, and reduced the selling cost by from 6 to 12 per cent.¹ In both the foregoing instances the suggestion was more effective when it was less obvious that the prospect was being told he must keep the machine.

Display of Product. There are possibilities of indirect suggestion even in display of the product. A pile of canned goods on the floor or counter may well have an irregular arrangement on the top as though some cans had been removed by customers. If they are stacked neatly in an even pile, it is apparent that no cans have been taken and the suggestion of taking another one is absent. A similar procedure was the basis for a display rack for paint brushes which had the handles projecting toward the customer, almost inviting a handshake. A can of paint on display with a paper wrapper holding a brush beside it suggests buying both items simultaneously, and actually did increase the ratio of brushes to cans very considerably in one instance.

Radio. Radio advertising may employ the technique of indirect suggestion. The simplest case involves merely naming the artist or entertainer in such a way as to suggest the commodity — for example, the "Camel Caravan" or the "Interwoven Pair." The

¹ Gundlach, T. "Wording the Coupon in Mail Order Advertising." *Advertising and Selling*, November 13, 1929, 14, 31 ff.

listener understands that such names are selected advisedly and does not resent them. More subtle and favorable suggestions are employed in the arrangement whereby the entertainers mention the product in the course of their good-natured "chatter." When one of them is making a speech or telling a story, the other interrupts and urges him to be sure and mention so and so. Or the product enters as an absurd dénouement to some incident that is being related. If such a script is executed cleverly, it amuses rather than irritates the audience and the indirect suggestion is effective. The foregoing technique should not be confused with the practice of introducing dialogue into the sales talk. This latter procedure does not sugar-coat the selling announcement as much as might be thought. A brief dialogue between a patient and a physician about intestinal flora or between two mothers regarding infant food does not provide much of an indirect suggestion. The listener knows very well what is being done, and the additional interest aroused by the dialogue form does not offset the ordinary attitude toward the advertising script the way the amusing chatter does. After all, the listener expects some type of announcement, and inasmuch as the dramatization is usually rather flat, it is little superior to the conventional procedure.

Atmosphere. One of the subtlest kinds of indirect suggestion is the creation of an appropriate atmosphere for the commodity. In many situations we are responsive not merely to the main object of our attention but to the background of stimulation which goes along with it. In the days of the silent moving pictures the organ accompaniment was not particularly in the center of the audience's attention, but if the music stopped, everyone noticed its absence. Aside from playing tunes the words of which were appropriate for the picture, it lent a quiet atmosphere to a bucolic scene and provided a more tempestuous background as the plot thickened. All through life we are subtly responsive to the emotional tone of our experiences and our most vivid memories have this component. Many of us still get a mild emotional reaction at the sound of "Over There," "Keep the Home Fires Burning," "Tipperary," but few of us thrill over the "Fourteen Points." The logical implication is that moonlight and roses should have a place in advertising copy as well as in everyday existence. Although in certain instances advertising and selling must perforce be hard-headed and "brass-tacked," nevertheless there is a place for the subtler feelings and emotions. Lending an

appropriate atmosphere to the commodity is one way of creating these experiences.

Atmosphere in Stores. Retail establishments occasionally utilize this principle. A dealer in fancy lamp shades had a large store with an acre or so of these silk and parchment creations on display. He experimented with a musical background to create atmosphere. Behind some palms in the corner he placed a victrola, played different types of records, and observed customers and sales. After considerable experimenting he concluded that so-called chamber music, such as played by a string quartet, was the best. The customers were responsive to this delicate, unobtrusive musical accompaniment, which lent an artistic background to the display. Another similar concern went so far as to employ a Japanese girl in native costume to flit around among the lamps, and when the prospect entered, she came up and pinned a rose in his buttonhole. Her personality, naturally, was a critical factor, but the system actually proved successful and the customers did catch a bit of exotic Oriental atmosphere which made them more inclined to buy the lamp shades.

A radio sales concern employed a hostess. The customer entered a small waiting room, where he found some wicker furniture and an attractive, refined young lady reading the *Atlantic Monthly* in such a way that it was perfectly obvious to him that she was reading the *Atlantic Monthly*. She graciously laid her magazine aside, greeted the customer, and introduced him to the salesman. That was her job. By the time he had reached the salesman the prospect had caught the atmosphere and the suggestion that this was a place of culture and refinement where persons who read the *Atlantic Monthly* bought their radios, and that it would be a good place to buy his radio.

Atmosphere in Advertisements. The advertiser may employ this principle of atmosphere to his advantage. An advertisement of a particular cosmetic features the boudoir of Mrs. George — on Fifth Avenue in New York City. An inset shows pictures of her home and her dressing table. The text states that in her boudoir "there is nothing more exquisite than the Veolay perfumes and toilet articles which adorn the charming dressing table." These commodities are merely put into a Fifth Avenue atmosphere and suggestion does the rest.

A poster board displays a couple in evening clothes dining in the

roof garden — "Fatimas, nothing else will do." The main purpose of the advertisement is to create atmosphere for Fatimas. The workman coming home from the mill room of the rubber factory sees this display and wishes he could be on the roof garden himself in evening clothes and attractive company. He knows no women of the class illustrated in the poster, he has no tuxedo, and the doorman would doubtless bar his entrance, but he can obtain Fatimas, and he does so in an effort to go a short distance in a desired direction. Many a girl who works at the notion counter in the "Five and Ten" uses a certain cosmetic because she reads that it is used by prominent people who are wintering at some beach in Florida. She cannot go South, but at least she can use that particular cosmetic as an emotional substitute. By the same token one gets a vicarious fulfillment of her desire for Bohemian life by using perfume named "Evening in Paris." It may be noted that in most of the clothing advertisements the subjects are not dressed for work but are sitting around on trunks or are going somewhere pleasure-bent. The aim is to associate this particular garment with a pleasant background.

Atmosphere in Display. The same principles operate in the display of the commodity. A cheap watch is placed in a bag of cham-ouis, thus suggesting a similarity to the finer watches which come wrapped in this manner. The ribbon around the candy box adds nothing to the taste of the confection, but does make it seem like a higher-priced product. A gift box for sports jewelry in the shape of a horseshoe appeals to horsemen and may also carry some suggestion of good luck. Similarly, the uniformed doorman at the store, while he occasionally helps somebody push open the door, has as his main function the creation of the idea that it is a high-class establishment. He does this solely by virtue of his ornate and dignified presence, even though he may be feeble-minded. It is possible to go too far in this matter. A hotel dining room seeking transient patrons in the middle class found that waiters in tuxedos without question created atmosphere but gave the impression that the place was expensive. When waitresses in ordinary uniforms were installed business picked up and *hoi polloi* were no longer frightened away.

Aroma. Even the lending of atmosphere to books by perfuming them with an appropriate aroma is not an absurd idea. A work on sea travel might exude a bit of salty tang, or a book with a scene laid in the Orient might have a whiff of oriental incense circling through its pages. One publisher did try perfuming the pages of a love story,

but found it was not particularly successful. The women did not like the particular brand used, and men apparently avoided the book for fear that their friends would think the perfume was on them.

The direct mail field affords other possibilities along this line. A folder offering tweed clothes might have a slight tweed odor, or a circular for a food product might be treated with the corresponding aroma. One writer seriously suggests that we might even give the prospect a pleasant surprise when he licks the return envelope by having some pleasant and appropriate taste in the glue on the flap.

Effect of Subliminal Odors. One of the few experiments on the unconscious effect of odors is pertinent in the present connection. It has additional interest because it deals with a product that is widely used.² Four pairs of hose were employed in each experiment, all of the same style, color, and design, and packed in identical boxes, but with different odors. One had the natural and slightly rancid odor that goes with silk hosiery when it is new; another had a faint aromatic odor with narcissus predominating; the third had a fruity odor, and the fourth, sachet. The odors were faint and were produced by pinning to the hose a card of perfumer's blotting paper with a drop of the appropriate compound on it. That the effect of the odors was almost entirely subliminal is shown by the fact that only 6 of the 250 subjects noticed any scent at all. The data were gathered by house-to-house interviewers in Utica, New York. The four pairs of hose were displayed several feet apart so the odors would not conflict and the housewife was asked to "help us find the best quality." In examining the hosiery the subjects were apparently looking for such things as texture, weave, general feeling, wearing quality, weight, and sheen, although the stockings were identical in these respects and differed only in the very faint odor. When the data were complete, it was found that 50 per cent of the time the narcissus odor had been selected as "best quality," the fruity in 24 per cent of the cases, the sachet in 18 per cent, and the natural in only 8 per cent. Different samples of the data maintained this proportion very consistently. If the odor had been inoperative each type should have been selected about 25 per cent of the time. One type was selected with twice this frequency.

It is interesting to have this experimental demonstration of the subliminal effect of odors upon behavior. Other organisms live

² Laird, D. A. "How the Consumer Estimates Quality by Subconscious Sensory Impression," *Journal of Applied Psychology*, 1932, 16, 241-246.

much more in a world of smell than does the human species, which has its nose farther from the ground and substitutes visual for olfactory experience. This does not mean that human reactions to odors have disappeared. The way that they call up associations and memories is especially striking. Every adult has encountered some odor such as burning leaves or an unusual medicine which took him back immediately to vivid experiences of childhood. It is conceivable that our preferences for places or even for people may include a component of this sort. The manufacturer and the advertiser may well give some thought to a possible influence of this type of sensory experience upon the sale of the product. If subliminal odors influence preferences for hosiery it is highly probable that similar tendencies would operate with many products.

Atmosphere in Radio. Atmosphere plays a part in radio advertising also. Although the content of the program is usually selected because of its appeal and the probable extent to which it will secure an audience, it may go farther and lend an appropriate background to the product. A manufacturer of a light beverage, for instance, sponsored an orchestra which played tinkling music, suggesting the sound of ice in a glass. A rough and ready program of the adventures of a physically competent adolescent formed the background for advertising a breakfast food. Railroads attempting to stimulate travel to the West featured cowboy songs and chuck-wagon quartets suggestive of life on the dude ranch or in the national parks. Some of these efforts to create atmosphere have an additional advantage in that they attract listeners who will be good prospects for the commodity. Cigarette advertising, for instance, makes frequent use of dance orchestras, presumably aiming at the youthful market. Home remedies, such as vaseline, employ more homely programs. One sponsor who wished to create the impression of the bigness of his product had the announcer mention it in an awe-struck voice. These problems of radio atmosphere are not to be confused with related problems of showmanship, sound effects, and the machinery of illusion. These latter constitute psychological problems, which are not under discussion at the moment. They deal rather with creating an appropriate atmosphere for the program and not necessarily for the product itself. One merely has to witness a familiar broadcast in the studio in order to appreciate the contrast between the visual and the auditory experiences.

Caution in Using Atmosphere. Indirect suggestion by means of

atmosphere should not be utilized uncritically. It is necessary to determine whether the atmosphere in question will produce a favorable response. For instance, a shoe concern wishing to show how old they were and to emphasize their long-established reputation ran woodcuts showing scenes in the early days, tying up with the fact that they were operating in those days. The campaign was not very profitable because men were more interested in the style of the shoes than in the antiquity of the firm. On the other hand, one coffee manufacturer establishes the epicurean atmosphere of the Old South which fits in very well with the product. Sometimes the antiquity atmosphere is presented merely by way of contrast to show how far technical developments have progressed. A concern selling gas refrigerators presents events in the gay nineties as an argument against the old-fashioned type of refrigerators which were in vogue in that era. Much depends on the skill with which the contrast is made and the tie-up between the apparently irrelevant cut of the high-wheeled bicycle and the gas refrigerator. We shall see later that irrelevant pictures must be handled very carefully, lest they remove the reader still farther from the product.

Even if the advertiser is not interested in creating a favorable atmosphere he should at least avoid an unfavorable one. A concern was featuring the clear golden appearance of their product but marketed it in a green package. Another firm had a light, fluffy product and put it in a dark muddy package. The following instance represents an unsatisfactory effort to lend Christmas atmosphere to the commodity. The suggestion was to get one's wife an unusually attractive Christmas gift and there was a considerable play-up of the Christmas spirit. It developed that the commodity in question was a white-enameled garbage container for the kitchen. The Christmas tie-up and the Christmas atmosphere were somewhat out of place with such a mundane object. It would be almost impossible to create atmosphere for this product in the sense in which we are using the term.

Focusing on One Prospect to Get the Others. A subtle application of indirect suggestion involves addressing the advertisement directly to one particular type of prospect but allowing other persons to read it. This type of indirect suggestion is particularly disarming. It may be illustrated by the advertisement for a watch which is addressed to "you railroad men." It plays up the fact that they need very accurate timepieces if they are to run the trains on

schedule, and that the — watch will enable them to do that very thing. The advertisement is directed to "old rails," but other prospects read it, and get the obvious suggestion that if this watch is satisfactory for railroad men it certainly must be good enough for the rest of us. Overhearing the message which is not intended for the ordinary reader is quite disarming. It is analogous to the technique of indirect suggestion employed by some physicians. Instead of telling the patient, "I think you are going to get better now," the doctor goes into the next room and makes his statement to some other member of the family in such a way that the patient overhears, although the remark is ostensibly directed only to the relative. This suggestion coming thus indirectly to the patient arouses no skepticism. This same principle operates in "comic" strips in which the characters talk about the product and its virtues. The statements in the "balloons" are directed to the other person in the picture and not to the reader of the strip. However, the latter overhears, as it were, and receives the suggestion without the arousal of opposition. Thousands of youngsters have been led to eat spinach through this medium.

Another example is the coffee advertiser who focuses on the occasional guest. He suggests that the family keep a little of this coffee in the house so that when they have a guest for breakfast they can serve some really good coffee. The implication is that if it is good enough for the guest, it is good enough for the rest of the household. The suggestion is indirect in that it does not urge them to use Yuban every day, but that idea nevertheless is implicit.

A similar tendency is manifest in advertisements that are ostensibly directed to the children but partially, at least, to the adult. "Next time you get hungry between meals and mother starts in with a slice of bread and reaches for the jar of — peanut butter you ask her to let you spread it on, and when she sees it is going on twice as thick you interrupt her before she says a word and tell her it's good for your lining." Or again, "Those lace collar boys watching the game from the shade. They are full of caramels; that's how they got that way. But you, you can stand banging, and you know that dirt can be washed off. You eat Shaker's Oatmeal. That's how you got that way." In both the foregoing instances, the advertisement was directed to the child but the parent interested in Junior's "lining" or in making a "he-man" out of him would catch the suggestion. Similarly, some radio skits that are intended for

children conclude with certain admonitions about their breakfast food if they want to be husky like Jack so-and-so. If the children begin to demand this food, well and good, but the admonition serves further as an indirect suggestion to parents who hear the announcer talking to the children.

Testimonials. Another type of indirect suggestion involves a statement from some user to the effect that the commodity is satisfactory. In everyday experience much significance is attached to the recommendations of friends regarding a particular type of automobile or radio that they have found to give good service. This process is carried a step further in the testimonial in which the recommender tells his story to the whole world. For a time this form of advertising was very successful. At the outset many of the testimonials were genuine and unsolicited, represented an actual endorsement of the product, and carried considerable weight with many prospective buyers. On the other hand, there has been through the years a gross misuse of the testimonial. As early as July, 1896, a copy of *Harper's Magazine* carried five advertisements with endorsements by Sarah Bernhardt.

Misuse of Testimonials. The more recent misuse of testimonials was greatly facilitated by "Famous Names, Incorporated." This concern offered, for a consideration, to get a testimonial endorsing almost anything from practically any individual of note. The company approached many famous people, and persuaded them to sign a blanket contract whereby for a certain sum they would endorse one commodity. The contract did not specify what commodity, and some confusion arose when a noted opera contralto came out with a hearty endorsement of a brand of cigarettes in the era when women in advertisements were merely watching the men smoke. She had signed a blanket contract to endorse one thing, and cigarettes happened to be the item which was selected by the other party to the contract. Another case is the halfback who stated that a particular kind of typewriter was "the greatest aid I ever knew in keeping up my grades." The amount of help which the typewriter gave him may be judged from the fact that in a class of 266 members the halfback stood 232d in mathematics, 207th in English, 237th in French, and 239th in history. An actor who plays the part of tough characters in the movies stated in a newspaper advertisement that there is nothing tough about his throat and that was why he smoked a certain brand of cigarettes. The next day in the Hollywood cor-

respondence in the same New York paper there was an interesting article about this same individual which stated that he wasn't tough at all and that he did not smoke.

Belief in Testimonials. The public is becoming aware of the fact that testimonials are usually purchased and have little relation to the writer's actual opinion regarding the commodity. The text of the statement is generally formulated by someone with greater literary ability than the endorser and presented for his signature. A quantitative study of belief in testimonials was conducted in 1928 and 1929. The subjects were asked a number of questions including the following: "Do endorsements of advertised articles by famous movie stars, athletes, and other celebrities convince you that an article is better than a similar advertised article which does not have such endorsements?" The subjects were drawn from a fairly large number of occupational groups and the experiment was repeated on three occasions a few months apart. Averaging together all the occupational groups, the negative answers to the above question in the three experiments constituted 73, 85, and 85 per cent of the replies. The preponderance of negative answers ran through all the groups, with the possible exception of the unskilled laborers.*

Some of the earlier testimonial campaigns were a huge success, but their day has passed. Some advertisers have gone so far as to caricature the campaigns of their competitors and give the whole testimonial procedure a *reductio ad absurdum*. Napoleon has thus endorsed a brand of cigarettes that facilitated relaxation before a great battle, and even Cleopatra has her favorite brand. A British petrol (gasoline) firm presented testimonials from a film star that she gargled with their petrol daily and attributed her beauty to its use.

Indirect Use of Testimonial Principle. In spite of the difficulties, advertisers have been loath to give up the testimonial idea entirely. They are attempting to modify it or to present something sufficiently similar to derive the benefits without involving the objectionable features. One technique does not present specific individuals by name but merely a representative of some particular type whose opinion regarding the matter in hand might carry some weight. Valets at a famous metropolitan club or stewards on an ocean liner are shown discussing the type of clothing that they most frequently take out to be pressed. The point is made that a certain brand pre-

* Frey, H. A. *Survey of the Reactions of Consumers toward Testimonial Advertising*. Northwestern University School of Commerce, 1930.

dominates. This device avoids the unfavorable attitude toward testimonials because it is obvious that no one is being paid for the statements made by the anonymous valets. However, the suggestion is made of culture and refinement in connection with the suits.

A similar device is the presentation of a large picture of an individual followed by recommendations in the first person. The individual is not named and probably is some model known to only a few of the readers. However, he looks like someone of authority whose opinion should carry weight. There is no ring of insincerity in the picture of a calf with the heading, "I drink Alderney milk myself." Another method which does not involve a direct endorsement by the individual but imputes such an endorsement to him tacitly is illustrated in the automobile copy, "Out of a whole garage of automobiles, Dillinger selected a V-8."

The advertisement may admit frankly that the testimonial by some writer or entertainer who receives pay for his other creative activity is paid for "at his usual rate." There is nothing objectionable about this procedure, and its value depends largely on the merit or cleverness of the statements made. It does not carry the force of a real recommendation, but the name of the individual is an inducement to read what he says, and the usual hostility to the testimonial is absent. A converse arrangement states that the testimonial is not paid for. If the writer is in the entertainment field and would derive personal benefit from publicity it seems plausible enough to the reader that he should be willing to testify in return for the free publicity. This fact is stated more or less definitely in the advertisement. Some readers, however, are inclined to detect a note of insincerity in such copy.

A few situations still exist in which direct testimonials carry weight. One of these was found in the field of farm appurtenances.^{*} If the testimony comes from other farmers who live in a near-by community, if the item concerns farm problems, and if the advertisement tells how to increase profits, the reaction may be favorable. One farmer told about his increase in crops because of a certain kind of fertilizer and included a picture of the additional silo that became necessary. The copy had a ring of sincerity. Some of the testifiers received large quantities of mail from other farmers. One man's picture was used so much and he received so much mail that he

^{*} Grimes, B. A. "A Localized Farm Campaign Based on 5000 Testimonials," *Printers' Ink*, November 12, 1931, 157, 25 ff.

finally took an agency for the fertilizer in question. Such cases represent exceptions to the general rule and, on the whole, the direct testimonial is in disrepute.

POSITIVE AND NEGATIVE SUGGESTION

Positive Preferable. It is possible to tell a person what we want him to do, or to tell him what we do not want him to do, hoping that he will pursue the opposite course. We may urge him to buy a particular brand of butter or suggest "Don't say butter, say Bellevue." Some doubt may well be raised about the value of negative suggestion. There is always the danger that the negative aspect of it will not remain as part of the suggestion. The same principle operates in plays or moving pictures which purport to teach the audience a "moral lesson." As suggested earlier, the fact that the criminal is worsted does not impress the youthful memory so much as the exciting details of the crime. The negative part of the suggestion has little effect and the positive residue is undesirable. So it is with negative suggestion in advertising. If a person is urged not to do a particular thing, there is little certainty that the "not" will go along with the rest of the suggestion. At one time the Coca-Cola people were perturbed over the fact that everybody was calling their product "coke" — a name that was applied to another less desirable drug. In their effort to break up this tendency they very wisely advertised, "Ask for Coca-Cola by its real name." If, on the other hand, they had said, "Don't say 'coke'!" that name would have stuck for ever and ever. The negative element would have been forgotten and they simply would have remembered "coke." The same principle applies to the slogans which suggest eventuality, such as "The machine you will eventually buy," or "Eventually, why not now?" Generally speaking they suggest procrastination, and whatever merit they have had may be attributed to the interesting flippancy or fatalism which appeals to some readers.

The admonition, "Do Not Open till Christmas," makes it all the more difficult to refrain. If a door is labeled conspicuously, "Do Not Enter," the attention of the average person is aroused by the possibility of entering, and that aspect becomes dissociated from the negative portion.

Dissociation Within the Suggestion. The process of dissociation

may be seen in its more extreme form in cases of dual personality. Such an individual at one time may be a normal person aged twenty and then, at another time, appear like a five-year-old. In the latter phase she will play with dolls, use childish language, and in every way carry out the part to perfection. The two distinct habit systems function separately and without interference. This complete habit dissociation is comparatively rare, but it illustrates the manner in which certain ideas or reaction patterns may break away from others.

An interesting case of dissociation is the incident regarding "pink toothbrushes." An advertising campaign had stressed "pink toothbrush" as a symptom of some oral difficulty, with a certain dentifrice likewise suggested as a remedy. However, people, at the height of the campaign, entered the drugstores and asked for "pink toothbrushes." The three dramatic words had functioned in complete isolation from the rest of the copy and suggested to the prospect a brand of toothbrush. In the same way, the negative portion of a suggestion that has been given may divorce itself from the major suggestion so that the latter will function in isolation.

In rare instances it may be satisfactory to tell the prospect not to do something which is so exaggerated that there would be no danger of his doing it anyway. A picture of a man pushing his car over a precipice with the admonition "Don't do that" may sell him piston rings. It is true that some people are negatively suggestible, that is, inclined to do the opposite of whatever is suggested. They can be induced to contradict themselves in the course of an argument if both sides of the case are stated at different times, and if they are told not to buy a particular thing, they are likely to make the purchase. However, they are distinctly in the minority and the advertiser cannot locate them, so that it is probably better for him to employ the positive type of suggestion.

Historical Trend in Negative Suggestion. This problem of negative suggestion has been approached by the historical method (cf. p. 30). A tabulation was made of the back files of *Harper's*, *Collier's*, and the *Literary Digest* at five-year intervals beginning in 1900. Any advertisement containing the words "no," "none," "nothing," or "not," or mentioning some act that would deny the use of the commodity, was construed as negative suggestion. The tabulation covered six-month periods in these magazines at five-year intervals. Table 4 gives the results for all the magazines combined.

TABLE 4. PERCENTAGE OF ADVERTISEMENTS USING NEGATIVE SUGGESTION

Year	Percentage
1900	18
1905	7
1910	8
1915	5
1920	3
1926	5
1931	2

The first column gives the year, and the second the average percentage of the advertisements sampled in that year showing negative suggestion in the sense mentioned above. *Harper's Magazine* was not included in the last percentage which is given in the table. The trend is obvious, starting with 18 per cent in 1900 and dropping rather suddenly to a low figure which remains low thereafter. The decreasing use of negative suggestion through the years tends to indicate its ineffectiveness.¹

Negative Appeal. It is desirable at this point to make a distinction between negative *suggestion* and negative *appeal*. The former actually tells the reader not to do some particular thing, hoping that he will do the opposite, whereas the latter merely describes or presents some situation, such as "lipping through empty tooth space," which he might wish to avoid, presumably by purchasing the tooth paste. Another instance of negative appeal is the picture of a cork stopper in each nostril symbolizing a head cold and advertising a menthol remedy that will "uncork" the situation. Although theoretical considerations indicate the general undesirability of negative suggestion, the same criticism is not universally applicable to the negative appeal.

Experiments on Negative Appeal. Experimental evidence is available as to the comparative merits of the positive and negative appeal.² A large number of advertisements were selected, and coupon returns obtained from the advertisers. The advertisements were classed by one individual as negative or positive in their appeal. A limited number of them, however, were classified likewise by a dozen other persons who agreed with the single individual in 97 per cent of the cases, so it is probable that his estimation was fairly

¹ Kitson, H. D. "Negative Suggestion in Advertising," *Journal of Applied Psychology*, 1922, 6, 66-68; Kaiserman, J. J. *Historical Trends in Advertising*. M.A. Thesis, Ohio State University, 1932.

² Lucas, D. B., and Benson, C. E. "The Relative Power of Positive and Negative Advertising Appeal as Measured by Coupons Attached," *Journal of Applied Psychology*, 1929, 13, 274-300.

reliable throughout. Pairs of advertisements were selected. The two in each pair covered the same commodity, had much similarity in design, occurred in equally favorable positions, were of the same size, were approximately the same with respect to color, and differed only in the fact that one had a positive and one a negative appeal. It was not feasible to iron out all the other variables entirely, but this was done as far as possible in making the selections. Some 117 pairs were selected in this way, and the returns for each member computed to determine whether the positive or the negative appeal had the greater pulling power. These figures are tabulated in Table 5. The first column gives the type of commodities advertised, the next gives the number of advertisements favoring the positive appeal, the last gives the number favoring the negative. For

TABLE 5. RETURNS FROM NEGATIVE VS. POSITIVE APPEALS *

	Number Favoring Positive	Number Favoring Negative
Toothpaste	17	13
Food-drink	19	17
Breakfast foods	4	9
Sanitary articles	3	4
Educational courses . .	14	14
Total.	57	57

* Lucas and Benson.

example, of the 30 pairs of toothpaste advertisement, 17 with the positive appeal brought more inquiries and 13 with the negative. No great discrepancy is evident between the corresponding figures in the two columns, and the totals show exactly the same number of pairs favoring the positive and the negative appeal. In a few instances the returns were practically identical for both members of a pair, but these cases are not included in the table. It should be emphasized again that the experiment dealt not with negative suggestion, but with negative appeal. For example, a toothpaste advertisement contained the caption, "I had six teeth pulled this morning," with an appropriate picture of a person holding the side of his face. The positive appeal which was paired with it showed "Admired everywhere — the radiant smile that shows the mouth of youth." With negative and positive appeals in this sense, the experiment indicates no consistent general tendency. The results apparently depend on other factors, such as the commodity advertised.

Negative Appeal in Advertising Campaigns. The results of some typical advertising campaigns point in the same direction. Sales resulting from advertisements for educational courses which were paired in much the same fashion as that described above revealed considerable variation from pair to pair, but on the whole 16 favored the positive and 12 the negative. In advertising a book by direct mail, positive appeals featured the success that might accompany familiarity with the book, and negative appeals emphasized avoidance of the inferior social standing which would result without the book. The latter approach was much more successful. Two of the negative advertisements had over 200 per cent more replies than any of the positive ones.

A campaign for a proprietary medicine used fifteen cities with a record of the sales for four months after the campaign in comparison with four months of the preceding year when there had been no campaign. The advertising copy was varied from one community to another, in order to investigate the possible effects of different types of copy. The results were computed in terms of the gain of the present year, with the campaign, over the corresponding period of the previous year. A few of the results may be cited. A warning regarding the prevention of ill health (negative) produced a gain of 171 per cent — the largest obtained in the campaign. On the other hand, a display of the package with some statements about the qualities of the product (positive) produced a 115 per cent gain. A dialogue in which two people discussed the qualities of the product (positive) yielded a 94 per cent gain. An appeal dealing with good health (positive) had a 10 per cent loss. The results are obviously equivocal with reference to the main problem. A different experimental approach was made with a series of twenty safety posters.¹ Each situation was treated in two ways, one showing the advantage of foresight (positive) and the other portraying the unfortunate results of carelessness (negative). The subjects were given these posters to study in a room by themselves, but the experimenter peeked through an opening and observed their behavior. On the average, 30 per cent more time was spent looking at the posters with a negative appeal than with the positive. The details and the content were also retained somewhat better in a subsequent test. This result does not show necessarily that negative posters would

¹ Reitynbarg, D., and Makarow, I. "Study of the Efficacy of Safety Posters, of Positive and of Negative Content" (in Russian); cf. *Psychological Abstracts*, 1933, 6002.

have been more effective from the standpoint of inducing safety, but the fact remains that they did attract more attention and kept the person's interest for a longer time.

Historical Trends in Negative Appeal. This question of positive and negative appeal has been approached historically.¹ Advertisements of foods, toilet articles, medicines, and sanitary articles in the *Literary Digest*, the *Saturday Evening Post*, and the *Ladies' Home Journal* were tabulated for the first six months of the year at five-year intervals. All the advertisements involved were one-quarter page or over. Two experimenters graded the appeals independently as positive or negative and pooled their results. The tabulations show a moderate increase in the use of the negative appeal. In 1912 it occurred in 8 per cent of the advertisements; in 1917, in 10 per cent; the same in 1922, and in 1927 in 19 per cent. When effort is made to analyze it according to whether the negative aspect was increasing in the pictures, the headlines, or the text, it appears that all of them are about equally characterized by an increase in the use of negative appeal.

These different approaches strengthen the point that in choosing between the negative and positive appeals more depends upon the commodity than upon this characteristic of the appeal. This conclusion has no bearing on the previous assertion regarding the comparative merits of positive and negative suggestion. The distinction should be made again that in the case of suggestion we are actually telling the prospect to do or not to do a particular thing, and it seems more effective to tell him to do it.

COMMODITY IN USE

Another type of suggestion involves showing the commodity in use. A picture of an open package gives a greater suggestion of using the contents than does the picture of a sealed package. A cut of a person turning the egg beater or stepping on the accelerator or hitting the tennis ball may afford a stimulus for imitation. If we see another person doing a thing, there is a tendency for us to want to do likewise. Imitation is actually a special case of suggestion. In either instance the person gets the idea of performing some act, but in one case the idea is presented in words and in the other case by

¹ Lucas, D. B., and Benson, C. E. "The Historical Trend of Negative Appeals in Advertising," *Journal of Applied Psychology*, 1929, 13, 346-356.

a demonstration. If one says "Jump," and the other party does so, that is suggestion, but if the former party jumps and the latter follows, that is imitation.

In making effective use of this mechanism, it is preferable for the person who is imitated to be of such a character that the prospect would be willing to imitate him. One hesitates to imitate a person of an inferior social status. The average prospect would not be favorably stimulated by a picture of a day laborer using a preparation to make his hair stay smooth, or of a laundress reading a book while the washing machine is in operation. It is preferable to show someone of the prospect's own social or intellectual status or even above, so that he will be disposed to imitate. Violations of this principle sometimes occur in the effort to demonstrate that the product is used by all classes or to put it in a "he-man" setting. A physically competent but uncouth individual is shown using the brand of cigarettes, and the appeal to the reader pulls in two directions. While it may create an atmosphere of virility for the product, it also inhibits any tendency on the part of the prospect to imitate the individual, who is distinctly below his social level. The situation is still worse if some suggestion of sex is involved in the copy, such as "Keeping kissable." Thus, in showing the commodity in use it is important to consider the nature of the person portrayed as using the commodity with reference to the possible reaction upon the prospect and the latter's tendency to imitate.

FACILITATING CARRYING OUT THE SUGGESTION

Coupon. After devising a good means of utilizing suggestion in inducing a prospect to buy, it is important to insure that it is fairly simple for him to act upon the suggestion. If a person is convinced and ready to purchase the commodity and then hurdles are thrown in the way, it is doubtful that he will jump over them. The personal salesman has the advantage that he actually is present at the crucial moment and is able to provide the order blank and the fountain pen. This flexibility is impossible in advertising, and very frequently the prospect cools off unless the process of reacting favorably is facilitated. The coupon is one of the most widely used methods of attaining this end. If properly administered it affords a convenient means whereby the prospect can commit himself at the time. It is comparatively easy to tear off a coupon, fill out one's

name, and even mail it. If it is a direct mail proposal with a post card included, the process is simpler still. Some justifiable criticism of coupons may be made. We have alluded earlier (p. 27) to the fact that the space for the signature may be quite inadequate. Another obstacle to the carrying out of the suggestion is provided by having the coupon embedded in the body of the advertisement rather than in the corner. This location necessitates the use of shears or knife in order to separate the coupon from the advertisement, and the reader hesitates, particularly if no instrument is handy. It has even been found that separating the coupon on the corner from the rest of the advertisement by a dash rule rather than a plain rule, that is, a solid line, gets more replies. The dashes suggest perforations and the reader thinks it is easier to detach the coupon.¹

Simplicity. It is also important to consider the nature of what the person is told to do in the coupon. Sometimes all he needs to do is to enter his name and address in order to receive the commodity or sample requested. On the other hand, horrible examples like the following occur: "Ask your dealer for it, or if he does not have it, send us his name, or send us fifty cents for a sample package." Such a suggestion is lengthy and complicated. An atrocious coupon put out by a fish company is as follows: "Send me, all charges prepaid east of Kansas, one case, six packages, of your fresh packed lobster, each package enough for two or three persons and a free can of lobster sandwich filling. I will try one package and if not pleased, I will return the rest to you and pay you nothing, otherwise I will send you \$3.95 within ten days." If the prospect fills out the coupon and sends it in, he is then supposed to remember this schedule of contingencies. Most readers would hesitate to take even the initial step. Special considerations arise when the suggestion is to come to a particular place such as a garage or hotel. The advertisements along the highway outside the town make it easy for one to find the establishment by showing on a map the simplest route to follow. Without this help the prospect may get lost and choose the first hotel which catches his attention.

Another technique to facilitate carrying out the suggestion is feasible where a local dealer is accessible by telephone. Lifting a telephone from the desk is even easier than taking a pen, filling out a

¹ Simons, E. N. "To Increase Pulling Power of Advertisements," *Printers' Ink*, December 15, 1921, 117, 109-112.

coupon, and mailing it. A typical instance is the suggestion in the advertisement, "There is a Remington-Rand dealer in your telephone book." A local advertiser may go even farther and include his actual telephone number. It has been found in some instances that if a coupon and a telephone number are displayed together, the latter secures more returns than the former.

Thus it is desirable to make it as easy as possible for the suggestion to be carried out. The fewer hurdles that are put in the way of its operation the better, because oftentimes a very slight distraction of attention or a very slight bit of difficulty will make the difference between the reader's reacting favorably to the suggestion and his giving up and turning elsewhere.

SUMMARY

The mechanism of suggestion involves keeping before the prospect the idea of buying the product to the exclusion of other ideas until it leads to action. It is not the most effective procedure, however, merely to tell the prospect to buy the product, and in applying the suggestion with finesse other problems arise. Indirect suggestion, for example, proves superior to direct suggestion, inasmuch as most persons resent a blunt command. It is possible to associate the product with someone who appears to have profited by its use, to create a cumulative effect by a display of the trade name, to arrange a counter display in such a manner as to suggest taking one of the items, or to introduce the product incidentally in the course of radio chatter. Another type of indirect suggestion is the creation of atmosphere for the product by presenting it in a setting in which the reader would like to participate, by displaying it in a container which arouses a pleasant association, by the occasional use of appropriate odors, or by adapting the content of the radio program to the product. Another technique for indirect suggestion is directing the advertisement ostensibly to one group of individuals but letting the others, figuratively speaking, overhear. This procedure is especially disarming because the readers feel that the advertisement is not influencing them at all. Testimonials constitute another indirect approach. In their heyday they were a very effective device, but in later years they have come into disrepute because of misuse of the testimonial written by a person who had no interest in the product but was merely paid for his endorsement. Indirect use of the

testimonial principle may be possible in such a way as to avoid the negative reaction on the part of the reader.

Positive suggestion is preferable to negative. There is a danger in the latter case that the negative aspect will dissociate itself from the rest of the advertisement and that the prospect will do the opposite thing from what was intended. A distinction should be made however, between negative suggestion and negative appeal. In the former the prospect is told not to do something, and in the latter some situation is presented which he will voluntarily avoid by the use of the commodity. No clear-cut superiority of negative or positive appeal has been discovered in experiments. Their comparative value depends rather upon the product.

Showing the commodity in use is another type of suggestion, and the reader is inclined to imitate the person whom he sees using the commodity in the advertisement. It is important, however, for the person in the advertisement to be of such a type as the prospect would wish to imitate.

It is desirable to facilitate the carrying out of the suggestion at the moment the person is favorably influenced by the advertisement. The coupon is one device used for this purpose and, if conveniently located, may enable the prospect to react while he is under the influence of the suggestion. Furthermore, the suggestion should be simple in order to avoid discouraging the prospect. The fewer the obstacles placed in the way of a suggestion, the greater the chance of its being effective.

CHAPTER V

INSTINCT AND DESIRE

PROBLEMS OF CLASSIFICATION

THE preceding chapter discussed suggestion as one of the short-circuit methods of stimulating a buying response. Another such procedure is the arousal of instinctive tendencies. Instead of merely suggesting to the prospect that he use the product, the advertiser frightens him into buying tire chains, sells him a car that is bigger than his neighbor's, or makes him crave the taste of ginger ale or arouses her hope that the beauty preparation will result in fewer lonely evenings. Such appeals hark back half a million years. Food, sex, avoidance of danger, and fighting those opposing one's destiny have made the race what it is today. Civilization has spread a veneer over these primitive tendencies of the Stone Age, and the instincts are manifested with greater finesse. We send over shrapnel and phosgene instead of biting and scratching. But it is not difficult to break through the veneer, and the proper stimulus will touch off an instinctive response. Advertising may be one of such stimuli.

Nature. Psychologists are not entirely agreed as to the nature of instinct. One rather generally accepted notion conceives of it as an inherited reaction pattern of a complicated sort which usually is "adaptive" in the sense that it furthers some biological end, although the creature himself is not particularly aware of that end. One goes to lunch because of the urge of the food drive with little thought of the fact that he is thus saving his life. Some scientists minimize the innate character of instincts and even avoid the term altogether. Their contention is that these reaction patterns are acquired in early life rather than inherited. It makes no difference to the advertising psychologist whether these tendencies are acquired or innate. The point which concerns him is that they occur universally among the readers of his copy.

Enumeration. With reference to the problem of enumerating the instincts, still greater disagreement exists. Some authorities list

twenty or thirty different instincts, while others limit them to two or three. Most writers in the field of advertising psychology mention a considerable number. The problem is complicated by the fact that other motives function in much the same compelling fashion as do instincts but do not have so much of a racial history behind them. Considerable value is attached, for example, to such things as cleanliness, stylishness, or to the fact that the object is nobby, sporty, collegiate, or guaranteed. Many of these motives are acquired in the individual's lifetime rather than derived from his remote ancestry. It is hard to draw the line. Further difficulties arise when attempting to classify instincts. Some are distinctly individual in character, while others manifest themselves in a social situation; for example, playing solitaire in comparison with playing bridge. Advertising psychology does not find it necessary to draw these lines so far as practical problems are concerned. It can sit on the side lines of the controversies and utilize whatever of these principles are valuable for its purpose.

It is not intended to belittle the theoretical consideration of these problems of so-called instincts. The scientific quest for truth can be justified in its own right. The field of psychology is so broad that no person can compass it entirely and specialization is inevitable. The business psychologist simply must leave to others certain theoretical problems that do not affect the practical value of his work. The origin of instincts is one such problem.

Characteristics Valuable to the Advertiser. A few characteristics of instincts are especially favorable for the advertiser who is attempting to use this type of appeal. For one thing, an instinctive response is likely to be quick. If a person's toes are stepped on and he does anything at all, his response is prompt and direct. He does not go home and write the offender a letter about it. Similarly, the instinctive responses tend to be vigorous if they are brought out at all. One does not walk lazily out of a burning building. In the third place, these instinctive tendencies are practically universal. Even the meekest individuals can be aroused by the proper stimulus, like the huge martyr in Shaw's play who planned to let the gladiators murder him without resistance, but when one of them hit him on the jaw lost his resolution and killed the entire squad. Consequently, the advertiser can rely on almost everyone's being susceptible to an instinctive type of appeal if it is properly presented, and he can expect a fairly quick and vigorous response.

It will now be in point to enumerate and illustrate some of these instincts and desires. A systematic classification will not be attempted, for the reasons mentioned above. Neither will effort be made to restrict the term "instinct" to those tendencies which everyone agrees are innate. We shall be dealing throughout with rather powerful drives and may somewhat loosely call them instincts.

FOOD

The appeal to the food instinct, naturally, is appropriate as a device for advertising food products. Everyone but the utter dyspeptic can be led on occasion to take an interest in food. It is a question of appealing to primitive senses such as taste and smell rather than to considerations of calories or vitamins. The latter is a long-circuit appeal. The advertisement may emphasize the velvety smoothness of the ice cream, or the "deep tang of fragrant green hickory" in the cured ham. The illustration may portray the beverages so delicately colored that one gets a suggestion of the taste from merely looking at them. A food item may be presented in an attractive setting with a well-appointed table, all portrayed in a picture of such good coloring as to arouse the interest of the reader who cares ever so little about his food. The same principle operates in the display of the product by means of the glass container, the package with a transparent aperture, or the cellophane wrapping, which make it possible to show the consumer just how the food looks. This may be a selling point in itself, which will arouse the instinct much as would be done if one saw the food on the table.

A note of caution should be sounded regarding the selection of copy for the food appeal. It should avoid showing the product in a setting which may arouse unpleasant associations. In a later chapter it will be pointed out that the advertiser must consider not merely the sensory effect of the advertisement but the associations and images which it will call up and whether these will be favorable to the product. This point is especially important in connection with food products which touch us so intimately. It would be undesirable, for example, to present pictures of a slaughterhouse in connection with advertisements for ham and beef. Such copy might be entirely pertinent in showing how carefully the product is prepared, but, on the other hand, it reminds the reader that he is

carnivorous. A more favorable arrangement would be to show the steak attractively served at a well-appointed table and thus arouse a more pleasant association. If the reader enjoys the picture that mild attitude may spread to his thoughts of the food itself and constitute a factor in the sale.

Although the food appeal is especially pertinent in the case of edibles, there may be other marketing situations in which it plays a rôle. In a local survey it was found that a certain part of the townspeople used a tooth paste largely because of its flavor. That is to say, the taste mechanism is closely associated with the system of reactions to food. The same principle may be involved in advertising mouth washes or medicines.

SEX

The sex instinct is used more widely than any other in advertising copy. This tendency reflects the overwhelming rôle of sex in our civilization. The conventional advertisement presents someone who by the use of the product has made himself or herself more attractive to the opposite sex. Copy ranges all the way from the more *blasé* "the skin you love to touch" to the subtle "it must be 'the schoolgirl complexion.'"

Examples of this type of instinct in advertising copy scarcely need to be mentioned, because they are present on nearly every poster board, and on almost every advertising page. If one makes up a collection of such examples and reads them all at once he gets the impression that this motive is overworked in advertising. "He vowed he'd be a bachelor, but her eyes captured him"; "A man thrills to the spell of sweet, soft fingers"; "May he kiss you with open eyes?" "No lonely evenings for this blonde"; and so forth *ad nauseam*. In actual practice one does not experience this cumulative effect, so that the trend does not strike him so forcibly.

Data on Effectiveness. The frequency of the use of this device testifies somewhat as to its effectiveness and may be taken as an indirect indication of its value. The familiar set of little blue books that retailed for five cents were classified on the basis of the leading interest involved, and then statistics were gathered as to the proportion of each type purchased as a result of advertising in various magazines. Averaging all the magazines together, 55 per cent of the sales were of books involving sex interest; 9 per cent, health; 13

per cent, free thought; and 22 per cent, self-improvement.¹ The outstanding interest in sex is evident.

A further illustration of the effectiveness of this motive may be seen in some experiences with book titles. It is the custom of certain publishers of cheap novels to market them for a while under one title, and, if they do not sell readily, to change the title, reprinting as much as is necessary. A few typical instances are as follows.² A book with the title *Fleece of Gold* sold 6000 copies. It was then reprinted under the title *Quest for a Blond Mistress*, and the sale was 50,000. *Casanova and his Loves* had a sale of 8000, whereas with the same work entitled *Casanova — History's Greatest Lover* 22,000 were sold. These figures indicate the potency of this particular instinctive appeal in selling the books. The same scheme is sometimes used with moving-picture titles. One other bit of evidence comes from a study of calendars. The pictures are selected by the retail merchants in accordance with what they think the customers will like, and thus reflect indirectly the motives and interests of the public. Calendar manufacturers testify that the pretty girl picture still constitutes about half of their sales. Moreover, the whole figure outsells the face about two to one.

PARENTAL

Many readers are responsive to an appeal to the parental instinct. The camera people, for example, emphasize the pleasure to be derived from taking pictures or movies of children and looking at them in later years: "That was the summer when Betty was three." The maker of a food product suggests a proper infant diet under the caption: "Don't rob your baby." Automatic sprinklers are sold by showing the schoolhouse fire and exciting the parents about the possibility of their own schoolhouse burning up. Various articles of safety and comfort are marketed in this same fashion. Children are portrayed brushing their teeth, or the dog's teeth, or getting warm in front of the electric heater.

Only one caution will be mentioned in this connection, and that is, be sure that the parental appeal is really pertinent. For instance, an advertisement for barbed wire showed a child with his trousers

¹ Haldeman-Julius, E. *The First Hundred Million*, p. 322. New York, Simon and Schuster, 1928.

² Hepner, H. W. *Psychology Applied to Problems of Business*, p. 540. New York, Prentice-Hall, 1931.

caught on a fence. The text indicated that the copy writer was aiming at a parental appeal. The reader might sympathize with the child or with his trousers, but this would not create enthusiasm for the wire. If the appeal aroused by the picture bears no relation to the product, the reader's interest will be aroused but the product will not be sold. Generally speaking, if the commodity is concerned with the health or safety or welfare of children, the parental appeal is appropriate.

FEAR

It is desirable, on occasion, to scare a person into purchasing something. Everyone can be frightened by a wild animal or a revolver under appropriate circumstances, and if the advertisement is properly devised it is possible to arouse this same fear instinct. "Scare copy" is particularly appropriate in selling safety devices, things which are conducive to health, and some kinds of insurance. It is a case of the negative appeal discussed in the preceding chapter. A long-standing illustration is the campaign to frighten people into buying tire chains, in which are shown the unfortunate consequences of doing without tire chains and the suggestion is made that the wreck and personal injury might have been avoided by their use. Fire is symbolized by some horrendous creature stealing over the roof whereas he might have been foiled by an automatic sprinkler or a fire extinguisher. Then there is the gentleman who neglected to take along a particular brand of flashlight and used a match to examine his gasoline tank. The admonition to "See your dentist before . . ." hints at the unfortunate consequences of failure to do this. Many safety campaigns are based on this same principle. Ohio, for a time, placed a small white cross at the scene of every fatal automobile accident. An industrial concern once utilized a vivid bit of safety publicity to induce employees to wear goggles. On the bulletin board in this plant was displayed a bottle of alcohol containing a human eye with the caption, "This eye belonged to Bill —, who worked in the grinding department. If he had worn his goggles he would still be wearing this eye." This safety campaign was a success.

Where Most Effective. The value of fear as an advertising device depends largely on the pertinence of the suggested eventualities which may be avoided by the commodity in question. Trivial

items such as shoelaces would not lend themselves very well to this form of advertising. Neither would dangers with very remote probability of occurrence be effective, such as being struck by a meteorite. But products conducive to health and safety can profit from this type of advertising. It is interesting to note that one of the tire chain manufacturers gave up scare copy for a while and then resumed it.

Minor Fears. The emphasis on rather indelicate aspects of personal hygiene is aimed somewhat at this same fear motive. The fear of offending others through various bodily odors has become one of those bases upon which a great amount of advertising has been done. Some authorities are afraid that we shall all get inferiority feelings as a result, while others think we are becoming immune to the suggestions. Another of these bugaboos is obesity, with the classical "future shadow" series or the accusing finger pointing and the headline, "You only weighed 120 pounds when I married you." These appeals are not pitched at quite such a fundamental fear level as those involving personal safety. The social aspect is more pronounced and the fear involved is a matter of social ostracism or marital failure rather than fear in the fundamental biological sense. These practices shade off into the question of negative appeal discussed earlier.

SELF-ASSERTION

Self-preservation or self-assertion is often mentioned as a fundamental instinct. Almost anyone will exert himself to the uttermost in order to save his own life, and even the meekest individual will respond vigorously in a real emergency. Probably this tendency more than any other brought *genus homo* through the Stone Age with impunity, and it is still present beneath the surface of our civilized behavior. Let somebody crowd ahead of us in the line at the ticket window, or enter a parking space into which we are just preparing to back, and the troglodyte rises within us. Many intellectuals become perturbed in a political or scientific argument. Athletic competition affords a wholesome outlet for this self-assertive motive, and even a bridge game involves it to some extent. In advertising, this tendency is used by appealing to the desire for success, or independence, or the possibility of surpassing other people. The idea of leading the procession rather than of following appeals to many

readers. They are urged to get the best type of product or the latest edition in order to satisfy their desire to be superior to their friends. Vanity is another manifestation of this same urge. If we can make others admire us, we thereby feel ourselves superior; and if we can secure more admiration than our rivals, we have thereby asserted ourselves. Hence, automobile showrooms provide large mirrors so that the prospect can see herself sitting in the car and observe how she will impress her friends. The advertisement for this product may read, "Expect to be stared at." A breakfast-food concern from a different point of view features the fact that it "Makes kids husky." The copy presents a picture of two healthy youngsters engaged in some rough-and-tumble pursuit with the implication that this type of oatmeal accounts for their size and health. Another cereal advertises "Gangway for a Pep Eater" with a picture of a fifty-pound halfback coming through center.

Fashion. Somewhat related to self-assertion is the desire to be different from other people and thus to excel them. This desire concerns itself especially with being different from one's inferiors. With reference to his superiors there may be the opposite tendency to imitate. These two tendencies sometimes combine or alternate in such a way as to constitute fashion, which involves a mass acceptance or approval of some form of art, particularly in the field of personal adornment or dress. New styles are distinctive creations which may be accepted and become a fashion or may sink into oblivion. Suppose, for example, that everybody is about on a par, and then one person, whether it be in the Fiji Islands or on Fifth Avenue, puts on green beads. Thereby she is somewhat differentiated from the others and the tendency toward self-assertion is satisfied. Other persons, however, immediately begin to imitate the leader, and soon all have green beads. Thereupon the first person, having no distinctive characteristic, has to resort to something else, perhaps earrings or buckles.

The impelling character of this motive may be seen from an incident in the mining districts. A prolonged strike was in progress and the community was approaching a state of destitution. Some philanthropist secured a stock of new shoes which had failed to pass inspection or for which there had been no demand and sent them down there for the miners' wives. The shoes, however, were high shoes, and at that time low ones were the fashion. Consequently these women, who were nearly barefooted, refused to wear the high

shoes which were given them. In 1923 the manufacturers of detached shirt collars for men did a \$42,000,000 business, which at a later period had dropped to something like \$9000 due to the vogue of shirts with collar attached.

Changes in Fashion. With all its potency, fashion is nevertheless a rather unstable institution. Certain influences almost overnight may swing it from one extreme to another. If a few prominent members of a college community can be induced to wear brindle corduroy trousers for a few days, there is an immediate lull in the market for knickers in the university district. If a particular fashion or fad is taken over by the lower classes, it is promptly ruined so far as the upper ones are concerned. The so-called Helen Wills cap consisted essentially of a green celluloid visor with white straps that go over the head, and was originally worn by tennis players. It was soon adopted for all kinds of sports wear, including motoring. Then it was taken up by the truck-drivers, and that ended its vogue for the rest of the community. A manufacturer who contemplates quantity production on account of a newly developed fashion must face the possibility that some unforeseen circumstance will change the fashion almost instantly and terminate the demand for the product.

Predicting Fashions. The manufacturer is naturally interested in predicting fashion in advance. This can be done to some extent. In the clothing field considerable information of predictive value emanates from Paris. The usual technique there is to make first copies of numerous new styles that have been created. These are displayed for sale and close watch is kept as to which models are selected. It is assumed that this initial preference on the part of a small select market will be typical of the preferences on a much larger scale. These preferred models are duplicated, and as soon as a considerable number are being worn in public places the fashion spreads by virtue of the tendency described above.

In some fields the change in fashion is very gradual anyway and a careful study of the trend over a period of years makes possible a forecast for the next few years. The fashion for sun-tan shades in hosiery was several years in the making. A survey of frequency of demand for various shades showed an increasing preference for darker ones until sun tan came clearly to the fore.

Influencing Fashion. Instead of trying to predict the fashion in regard to a particular commodity a manufacturer may be so bold as

to attempt to control it himself. In rare instances this is done suddenly and dramatically. In a homogeneous locality such as a college community, if a few prominent members can be induced to wear some particular kind of blazer, shoe, or sweater and if enough admirers follow along meekly, the fashion spreads rapidly. It may be abetted somewhat by advertisements calling attention to the clothing of these campus leaders. This arrangement carries more weight than a testimonial because the individual actually exhibits the commodity rather than merely suggests its use. To produce a similar result on a large scale is next to impossible. It necessitates inducing someone of extreme social prominence, such as English royalty, to initiate the fashion.

Another procedure for deliberate change of a fashion is to make the new design and attempt to market it. Usually this program will be unsuccessful if the desired change is drastic. When the clothing manufacturers, for their own reasons, wished to lengthen skirts, they tried to do so suddenly, without success. However, they were able over a considerable period to produce a gradual rather than a sudden lengthening. But radical changes, unless they have some unforeseen appeal to a considerable number of leaders, are apt to fail.

Advertising may be used in order to attempt a deliberate alteration of the course of fashion, but this procedure is attended with some danger. Advertisements have falsely stated that some particular thing, such as high shoes, was the fashion, hoping that the consumers would believe the statement and purchase the product. If the readers discover that they have been misled, the advertiser must reckon with a loss in good will.

Thus fashion is a condition that is unstable and difficult to predict and control. If, however, one is able to ride on the crest of the wave, he is capitalizing a compelling motive; for it involves, among other things, the fundamental tendency toward self-assertion.

PLAY

Play is almost universal. The kitten chases its tail, the infant wields his rattle, the child indulges in hide and seek, the adolescent takes up social dancing, and the adult resorts to golf or bridge. Some authorities consider play activities, in young animals, at least, as a preparation for later life. The pups' playful rough-and-tumble teaches them the technique of sparring for a death grip which they

may need later, and the little girl manipulates her doll as a propaedeutic for caring for her own infant some years hence. Others regard play as largely an outlet for surplus energy. All agree that so far as the individual is consciously aware, play is conducted largely for its own sake with no ulterior end in view.

Vacation resorts, railroads, and steamship lines are among the leaders in appealing to the play tendency. The prospective customer's interest is aroused by the opportunities for golfing or horseback-riding or canoeing in some national park in the West. He is told not merely about the scenery, but about the interesting things that he can do at this place. To those who really enjoy driving a golf ball over a new course, galloping along a scenic trail, or paddling up an unknown stream, this type of advertising makes a distinct appeal. An automobile manufacturer who had been calling attention to gears, tires, and technical points found that sales improved when he linked the vehicle rather with outdoor magic, gypsy travel, apple orchards, and breezes from the lake.

Somewhat related is the appeal of hunting and fishing. It is probably a specialized form of play, to which certain individuals are very responsive. A picture of a group cooking around a campfire, or of someone calling a moose over the lake at sunset or playing a game fish, makes an instant appeal to those who have spent pleasant vacations in the wild country. Even lowly items for the grub-kit may be sold by this motive.

CURIOSITY

Curiosity seems universal. The time-worn stunt of standing on a street corner and looking into the air until a crowd gathers is just as effective as it was generations ago. At the stadium 10,000 people will stand and crane their necks in the effort to watch a man who is carrying three hot dogs in one hand and three cups of chocolate in the other. This instinct of curiosity is very easy to touch off, particularly in group situations. Another instance more directly in the commercial field was noted at the World's Fair. The American Can Company gave away a small souvenir savings bank and a long line of people filed up to the booth. Some interviewers went casually up and down the queue incognito, inquiring why the people were there and whether they knew what was to be obtained at the end of the line. It was discovered that about thirty per cent did not know

specifically why they were in line but merely expected to receive something. Curiosity alone was sufficient to produce this behavior.

Teaser Copy. In advertising, the most common appeal to curiosity is the so-called teaser copy. It uses such phrases as, "Watch this space," or a large question mark or "Oh, Henry!" or something to cause the reader to wonder for a few days or weeks what it is all about. After a while he is enlightened, and the assumption is that he will be interested in the product. Curiosity is essentially an attention-arresting device, rather than an inducement to buy. When teaser copy was comparatively new, like many other advertising devices, it proved very effective. One of the earliest concerns which adopted it had a tremendous increase in business for a while. Their teaser copy merely said, "Butternut is coming." Everyone was curious; the mystery ranked with the weather as a topic of conversation, and bets were laid in some instances. After the dénouement everyone bought some of the bread to see what it was like. A brand of gasoline was launched by copy such as "Stenographers like X-70," "Duck hunters like X-70," "Architects like X-70." As the campaign progressed the readers wondered what product could be liked by such an assortment of people. Similar techniques have been used in radio continuities. The program of the American Oil Company was launched by a teaser campaign in which the announcer stated: "The Americans are coming; America marches ahead from Maine to Florida. . . . I should like to tell you the name of the sponsor of this program, but I am sorry I can't." In due time the sponsor was revealed. The public has encountered this device so frequently that it is now a bit skeptical concerning any obvious effort to arouse curiosity. Some readers become so disgruntled by a teaser campaign that when the truth is finally divulged they have an actual hostility toward the product.

If curiosity is aroused to a high pitch and then the object of the curiosity is comparatively trivial, there is such a distinct disappointment that the net result is generally unfavorable and may even constitute a permanent animosity. If a person sees a crowd gathered, elbows his way to the center, and then discovers that they are merely watching an earthworm trying to dig a hole in the sidewalk between two bricks he is disappointed at the fact that he has gone to all that effort for such a trivial reward. Similarly, if the reader's curiosity is aroused about a forthcoming unknown commodity and it subsequently proves to be some trivial bit of candy or chewing gum,

disappointment and ill will ensue. If, however, the product is of major character, such as an automobile, the chagrin will be much less pronounced.

The above difficulty may be avoided somewhat by giving the reader a hint as to the nature of the commodity, even though certain elements still leave his curiosity unsatiated. When the Terraplane automobile was first marketed the advertising featured the word "Terraplane" without stating exactly what it was. However, little sketches in the layout gave the hint that it was something pertaining to automobiles. Consequently, the readers who were interested in that subject reacted favorably to the campaign. It is sometimes desirable to give some notion as to when the suspense will end. If the campaign goes on indefinitely, even though curiosity is aroused at the outset, the prospects may lose interest. If they know approximately when the information will be divulged they may set themselves for that time and maintain a modicum of interest until then. It is also desirable to insure that each advertisement in the campaign is a unit in itself. The practice of running brief copy through several pages of a magazine, a few words on each page, arouses curiosity, perhaps, but if the first advertisement seen is in the middle of the sentence the reader is not likely to take the trouble to look back and find the first portion.

Other Curiosity Appeals. Teaser copy is not the only way in which curiosity is employed in attracting attention to the commodity or the advertisement. Some of the techniques to be discussed later in connection with novelty as a device for arresting attention operate largely through arousing curiosity. A store window has the glass entirely covered by opaque material except for a peep-hole in the center, supplemented with a hint that it is "private." Passers-by line up to take a peek. Crowds formerly gathered to watch a clock that seemed to have no mechanism to make it go. Curiosity may be aroused by such arrangements as those in which placing one's hands against the outside of the window at a certain spot makes the display table rotate or changes the volume of the radio which accompanies the advertisement.

Curiosity may serve to keep sales letters out of the wastebasket. One firm employed a seal shaped like a padlock and the statement, "If you are not interested, do not break this seal." Many recipients became curious and opened the letter. Another sales letter carried a sticker instructing the reader not to take his time to write "not

interested," but to use the following "not interested coupon." The latter involved several quasi-humorous statements with a space in front of each in which he could check, such as "I'm broke"; "The wife needs a fur coat"; "My mind is sealed"; "Any other good reasons." If this coupon aroused sufficient curiosity, the recipient might read the entire letter.

Then there is the view of the woman reading a letter, which is visible over her shoulder. Such a situation is irresistible to many persons and they "snoop." The letter begins by saying, "Before I give you the latest gossip I want to tell you about the breakfast food I just discovered." The sad part of it is that the gossip portion of the letter is not included and the disappointed "snooper" may develop actual ill-will toward the breakfast food. The way in which curiosity is satisfied or not satisfied is a critical aspect of the use of the curiosity appeal.

Another instance is that of putting the text of the advertisement in a conversation balloon coming out of a keyhole. Anyone who has ever listened at a keyhole, and many who have merely read about doing so, will associate it with mystery and interesting facts. There is even a trace of this same motif in the picture of two people discussing the product with their actual words quoted in the balloons above them. This has been called the "eavesdropper technique." One concern emphasizing the economy of using their product found that conversational statements secured about sixty-eight per cent greater reader interest than any other type that they used.¹

Some serial radio programs definitely incorporate the element of curiosity. Such programs often have other appeals, too, such as the rather "human" characters and the way they remind us of some of our own foibles. But some of these serials, particularly those directed to the children, strive to end nearly every broadcast with a climax, after the manner of the moving-picture serials. If the listener is actually interested in the program and the characters are left with the bridge burning or the enemy battering the door, he naturally wishes to hear how the thing comes out and will listen in at the next occasion. The result is the building up of an audience which listens to the broadcast repeatedly and thus experiences a considerable repetition of the advertising.

¹ Anon. "Delco Features Air Diet," *Printers' Ink*, August 3, 1933, 164, 16.

CONSTRUCTING

Some persons derive pleasure from putting things together and from considering the finished product as really their handiwork. This type of appeal is feasible for a limited number of commodities. The yarn manufacturers suggest that women knit their own sweaters, and the copy presents somebody in a garment which she has made herself and which others are admiring. The caption is, "I made it myself." Sometimes radio manufacturers put out a radio set in unassembled form which the purchaser may put together by himself. He derives pleasure from the result of his handiwork, no matter how simple the process may have been. The sale is made partly on the basis of the pleasure the customer will get from putting the set together.

BARGAINS

The appeal of the bargain is difficult to classify psychologically. Those who attempt to attribute it to some innate mechanism invoke the collecting instinct. Everyone in childhood has made at least one collection: marbles, stamps, cigar bands, buttons, rocks, or insects. It is suggested that this urge manifests itself in the adult in the something-for-nothing attitude. This suggestion may be a little far-fetched as a complete explanation of interest in bargains. It is probable that tuition plays a larger rôle and that a person learns to worship bargains just as he follows the political party of his forefathers or respects the marriage customs of his particular culture. At any rate, the bargain appeal is widespread, especially on Monday morning after the advertisements in the Sunday paper. Incidents like the following indicate in quantitative fashion the efficacy of this particular type of appeal. A mail-order concern had prepared 10,000 pieces of mail, including a letter and an unstamped mailing card. They had previously run a test mailing on a small scale. The article was priced at \$2.68, but in setting up the final copy the printer had made a mistake and printed it \$3.95. It was too late to reprint, and would cost too much anyway. So the company supplied a couple of girls with red ink and had them cross out the \$3.95 and write in the \$2.68. This step was taken purely to save expense. The letters were sent out with misgivings, but quite unexpectedly the actual returns in proportion to the number sent out were over

twice as great as the returns in the test campaign where the price had been printed correctly. No mention of bargain was made in the advertisement, and the red ink was actually the correction of a typographical error, but many readers assumed that it was a markdown and that they were getting something for nothing, with the result that the returns were almost doubled.

A variation of the markdown motive is to sell one article at the regular price and include another one with it for a very small sum, or even free. The ubiquitous "one-cent sale" is a case in point. A publisher once sold 125,000 copies of a single-volume Shakespeare by mail, giving away with it a "free" copy of Omar Khayyam that actually cost four cents. Another instance of this same appeal is the contest. Many people engage in these projects in the effort to get something for which, at least, they do not have to pay any money, although they undoubtedly put in the equivalent in work and worry.

Bargains, however, should not be confused with cheapness. On the contrary, people have a good deal of interest in and respect for expensive articles, although they do like to get them at a reduced price. The sales power of high-priced items may be noted in passing. A picture in one of the British art galleries according to the catalogue is worth \$750,000. Most visitors pass the picture, along with the others, at their usual pace, but after they get tired and sit down to read the catalogue they notice the price of this particular picture and come flocking back to see it. One spring a New York department store advertised a \$1000 Easter hat, and the police reserves had to be called out in order to handle the crowd of women who wanted to get into the store to see that hat. No one was interested in buying it, but everybody wanted to know what a \$1000 hat looked like. A Chicago store when publicizing a shortening advertised the largest cake in the world. One hundred thousand women came in to see it during the first twenty-four hours. In an analysis of a large number of inquiries, Starch found that those for high-priced articles were as frequent as inquiries for inexpensive commodities. If inquiries for articles costing less than fifty cents are given an index of 100, the corresponding indices for other price ranges are: 50 cents to \$1.00, 104; \$1 to \$10, 87; \$10 to \$100, 119; over \$100, 92.

The above discussion has proceeded from tendencies which are primarily innate to those which involve a larger element of acquisition. Some of our desires, however, and many conceptions to which we attach value are due specifically to training rather than to hered-

ity. Hollingworth has called these "effective conceptions," and has pointed out their similarity to the instincts in their compelling nature. This is not the place to elaborate these acquired desires. They include such things as neatness ("Your neat kitchen is a joy") or patriotism ("Your country needs you"). The public is urged to purchase things because they are nobby, modern, popular, clean, artistic, imported, elegant, guaranteed, socially advantageous, beautiful, or conducive to hospitality. Many conceptions of this sort are available for the advertiser. However, these acquired desires are not so universal as the instincts. In certain of the lower social strata the neatness of the kitchen cabinet would constitute no appeal at all, and the artistic lines of the davenport would be irrelevant, but everyone might be frightened by the copy about avoiding automobile accidents. Furthermore, these effective conceptions are often less forceful than the innate drives. Although one might desire a product that was modern or popular he would not pursue it with the vigor with which he would strive to get ahead of his associates or to minister to his hunger.

APPEALS TO TEMPERAMENT

Mention should be made of the fact that persons differ in temperament, a more permanent type of emotional disposition. Some with quick, vigorous emotions are called choleric, while the melancholic are always looking on the unpleasant side of things.

Advertisements are occasionally directed to readers with one of these temperaments. The appeal to melancholics is the most common. A picture shows a man hanging by his hands from a point very near the end of a rope; "You must go up or down — which?" The text brings out the fact that if he takes this particular correspondence course he will go up. A certain type of individual will be profoundly moved by that kind of copy. Everyone knows persons who take a morbid pleasure in looking on the unpleasant side of things. They spend much of their time contemplating the unpleasant eventualities of life, such as ailments or surgical operations or general misfortune, and gloat over such details. Persons of this type will vividly contemplate the possibility of the fellow's dropping from the end of the rope, and the whole setting will engage their imagination and hold their attention. Another instance is the picture of the man sitting at his desk, at the top of a mildly sloping

curve. He is beginning to slip away from the desk and is looking apprehensively down the slope. The headline reads: "You may be slipping too and you may not know it." Subsequent copy shows that certain schemes for promoting personal efficiency will prevent him from going any farther. In similar fashion an advertisement may be directed to the choleric temperament. The breakfast food cooks very quickly so he will not have to wait; the fish flakes contain no bones to delay him.

These appeals to special temperaments are valuable only in limited situations. The readers of the general magazines would comprise only a small proportion of choleric or melancholics. Certain magazines, however, are sold primarily to queer people—hypochondriacs, neurotics, or those pursuing "success" to a pathological degree. Among the readers of such media may be found a considerable incidence of prospects for whom the appeals in question would be effective.

SUMMARY

Instincts furnish the advertiser a short-circuit method for stimulating a buying response. The present chapter enumerated and illustrated some of these fundamental instincts and desires without attempting a systematic classification. The arousal of the food instinct is an appropriate procedure for selling food and drinks. Caution should be exercised, however, in showing the product in a setting which may arouse unpleasant associations. Sex is a very widely used appeal in advertising. Its effectiveness may be seen in analyses of sales of cheap books as related to the topic or even in the influence of the title of a book or moving picture upon its popularity. The appeal to the parental instinct is pertinent for commodities affecting the welfare of children. Fear may be utilized efficiently in selling products conducive to the safety, the health, or the security of the purchaser. The effort to employ this same motive in matters of personal hygiene through fear of social ostracism does not touch quite such a fundamental biological level.

The instinct of self-preservation or self-assertion brought the race through the Stone Age, and still manifests itself in an argument about priority at the ticket window or about politics or even in athletic competition. The advertiser may make use of the desire for attaining success or of securing the admiration of one's fellows. Following

fashion is related to this tendency as it combines the desire to excel people with the desire to imitate one's superiors. The alternation of these motives causes rapid fluctuations in fashion, so that it is an unstable tendency and accidental factors may change it almost overnight. Some of the trends can be predicted by studying preferences over a period of time, and it is also possible to influence fashion by gradual modifications or, occasionally, by a dramatic adoption by certain key people in the community.

Play is almost universal and is pursued for its own sake. Vacation resorts and steamship lines find it profitable to feature the opportunities for play en route or at the end of the trip. Curiosity is most frequently employed in teaser copy, which suggests that something interesting is forthcoming, without giving details. The value of this device is not so great as it was originally because the public has developed a partial immunity. It is especially inappropriate if the product is trivial in comparison with the anticipation aroused. Other curiosity devices include the following: covering the entire store window except for a small peephole; putting the copy in the balloon in a picture, so that it seems to be a private conversation; ending a radio serial in a daily climax. Some products may be sold to certain people on the basis of the enjoyment they will have in assembling the finished objects from the parts which may be secured from the manufacturer. Bargains constitute a widespread appeal, as may be seen in the response to "sales" in the stores or the extent to which a product can be marketed by giving away some "free" item along with it. Bargains should not be confused with cheapness, however. In many cases people show a great interest in a thing which is very expensive or very much out of the ordinary in some other respect.

In addition to the foregoing motives many of which are fundamental and perhaps innate, there are numerous acquired desires which are still quite potent, aroused, for instance, by objects which are modern, popular, clean, artistic, imported, elegant. They are not quite so universal as the instincts and not quite so powerful, but nevertheless afford useful devices for the advertiser. An occasional advertisement may be designed to appeal directly to the melancholic or choleric type of reader. Such appeals are valuable only in limited situations, but when a magazine is sold primarily to queer people, its readers may react favorably to copy which presents some unpleasant eventuality that can be avoided by use of the product.

CHAPTER VI

LONG-CIRCUIT APPEALS

IT is impossible to sell everything to everybody by means of the short-circuit appeal. Oftentimes consumers want definite information about the product or they wish to know the reasons why it will meet their needs. The advertiser will find it advantageous in such cases to provide the information or to enlarge upon the advantages of the product. This procedure is called the long-circuit appeal. In the present chapter we shall deal with both reasoning and the presentation of information as advertising devices, then with the question of belief as related to the reasoning process, and finally with certain considerations regarding the comparative merits of presenting the want or the solution.

INFORMATION

Most long-circuit appeals give the prospective buyer information about the product. Although he sometimes buys a commodity because he is told to, or because his neighbor has one, or because it arouses his fear or curiosity, this is not always the case. One of the best ways to persuade him is to provide adequate information about the product. Such information may take several forms. The first of these is showing the actual use of the product: Roller bearings are discussed and it is indicated how they may be used in automobiles, airplanes, motors, and other types of machinery; a fabric is presented with information as to how it may be utilized in making overcoats and suits. A second type of information takes the form of illustration of the process of manufacture: The reader is shown how a photo-electric cell is used in order to test the sharpness of a razor blade; he is given some insight into the research on the part of the chemist in perfecting the desirable qualities of a motor oil; the process of making turret tops for automobiles is described and clarified by pictures of the presses which fabricate the steel. A third kind of information involves statements concerning the personnel of the firm. This is a frequent practice in financial institu-

tions where the confidence of the public may be influenced considerably by the personal reputation of the directors. A final type of information deals with the raw materials and the sources from which they come: An attempt is made to give the reader a complete picture of the product and the background of its manufacture; the telephone companies' window displays are good examples in the way that they impress the consumer with the intricacies of the telephone and may make him slightly more appreciative of the service he receives.

In a study of the informational character of advertising over a period of years it was found that out of a thousand advertisements in *Collier's* in 1902, 22 per cent were informational, and by 1919 this figure had increased to 74 per cent. A more detailed analysis indicated that the greater part of the informational copy concerned ways in which the product might be used. The processes of manufacture and the personnel of the firm came next in order, while discussion of raw materials occupied a relatively minor place.

Specific Information. If the advertiser is giving the prospect information about the product at all, it is desirable to make that information fairly specific rather than consisting of glittering generalities. To tell him that prices have been slashed carries much less weight than to explain that they have been reduced twenty-five per cent. Informing him that this particular tungsten lamp gives three and a half times as much light as a carbon filament is better than telling him that it gives more light. An advertiser in a trade paper was getting good returns from copy that read "fifty-seven per cent above Government specifications." Some of his timid associates persuaded him to tone it down to read "more than fifty per cent." He did so, and his replies were cut in half.¹ In the face of severe competition some of the shaving-soap concerns came forth with very specific information such as "the soap multiplies itself in lather 250 times; it softens the beard in one minute; it maintains its lather for ten minutes, and it is a result of having tried out 130 formulae." If it can be suggested further that the specific information is well founded, or is based on research or experiment of some sort, so much the better. Copy like the following did not give very definite information: "One-half of all the Packards are bought by people who previously owned medium-priced cars." A more specific statement of the fact, indicating that actual studies had been made was as follows: "A recent investigation covering 2700 sales

¹ Goode, K. *Manual of Modern Advertising*, p. 170. New York, Greenberg, 1932.

selected at random shows that one out of three had previously owned cars costing less than \$1500." In this same category belongs the kitchen cabinet that was "designed by 369 women." Evidently these 369 women had answered questions about the aspects of the kitchen cabinet which they would most prefer, and their suggestions had been embodied in the planning of the new model. The same principle of specificness applies in qualitative as well as quantitative statements. It is much better to allude to Denver than merely to refer to "a great Western city." The specific statement carries a ring of sincerity, especially if it does not give round numbers, and it furnishes a definite focus for the reader's attention. The generality arouses a less well-defined attitude, and may remind the more critical reader of previous unsatisfactory or misleading generalities.

Dramatized Statistics. Mere colorless figures and statistics become rather tiresome, and after reading a number of them one develops a statistical immunity. In order to avoid this eventuality the advertiser may dramatize the statistics in some fashion. A pencil manufacturer had the pencil write on a moving tape, measured the length of the mark, and then headlined: "Thirty-five miles for a nickel." A certain tube of shaving cream contains 350 shaves. A woman walks 996 steps preparing dinner and 446 preparing breakfast if she does not have a particular brand of kitchen cabinet. If one person drank five cups of tea a day it would take him 919½ years to consume the amount of White Rose Tea that is enjoyed by the population of New York City in a day. The telephone company calls attention in an envelope stuffer to the fact there are nearly fifty-four thousand telephone conversations a minute in the United States.

Frankness. Occasionally an advertiser gives information which might seem unfavorable to his business, but by the sheer frankness of statement secures favorable response. The following is from an advertisement by the *New Yorker* which aimed at securing other advertisers for its pages: "Just in terms of circulation, the *New Yorker* is not so much even in New York. Ten national magazines alone circulate more than one and a half million copies in the metropolitan district. In comparison with them, the *New Yorker's* circulation of fifty thousand doesn't look important. But in strict fact the circulation of the *New Yorker* is not the slightest criterion of the influence it can exert for you in New York, for the *New Yorker* is the one infallible key to the favor of those people in New York who

really count. . . ." Another instance is the spark plug that "won't startle the world as much as the electric light or the phonograph, but by anyone who knows modern motors the E. S. spark plug will be called another Edison triumph." The advertising manager of one of the large department stores asked a department head for something to put in the next day's advertisement. The department head growled, "We've got a lot of raincoats in there that aren't worth a damn, and we're going to sell them for \$1.49." The advertising manager, much to the consternation of everyone, quoted the department head directly in the advertisement and all the raincoats were sold. The sheer frankness of the statement produced a favorable response.

REASONING

In some advertising situations it is advisable to go beyond the mere dispensing of information and actually reason with the prospective buyer. The process may begin by locating his difficulty, such as the short life of his automobile tires. Then it is analyzed as due to wear of the rim. A solution of the difficulty is sought and a description is given of the construction of this particular brand of tires near the rim, so that the rim cuts are avoided. Another example is the presentation of recent scientific findings in the field of dietetics, such as the importance of vitamins, with further explanation of how they are present in certain types of food, but may be lost by improper preparation. Then it is shown that the product under consideration is prepared so that the vitamins will be retained.

In rare instances a concern with sheer audacity runs copy which is distinctly unreasonable and is nevertheless successful, perhaps because of its flippancy. For example, the Three Rivers, Big Link, Old-Fashioned Pennsylvania Dutch, Hickory Smoked Sausage Company sold a homemade fancy product of presumably very high quality at the rate of two pounds for \$1.75. In the fall of 1930 they changed their advertising copy to include the following: "However, because of the decrease in the price of raw materials, this price has been increased to \$2.00 for two pounds." The utter unreasonableness of raising the retail price because of the decrease in the price of the raw materials succeeded, apparently by its sheer audacity. There was an actual increase in the number of customers and in the amount sold over the corresponding period of the preceding year

when the lower price prevailed. It should be noted, however, that the market was limited anyway to persons who would pay the high price and the additional increment might not be a deterrent. Needless to say, such copy would be successful in only a limited number of instances.

BELIEF

It is well to point out in this connection that belief and reasoning do not necessarily go together. It is possible to create belief through a purely intellectual process, but it is equally possible to produce belief through an emotional reaction. Some of the clearest instances of the latter are in the field of the occult. A person with near friends who have died recently may wish that it were possible to communicate with them in some other world, and so he actually does believe in spiritualism. Some noted scientists, who ought to know better, have adopted spiritualism because of such an emotional urge. Further indication of the separation of belief and reasoning may be seen in the paranoid who has utterly unreasoned delusions that he is Napoleon but can nevertheless do mathematical reasoning, or in the politician who develops a sincere belief that a new post office building is indispensable.

Experiments on Belief and Desire. The scientific principle borne out in these examples has also been demonstrated experimentally.¹ The material consisted of propositions taken from the fields of religion, ethics, politics, and science and a few that are not easily classified. A few typical ones are as follows: "Is democracy the best form of government?" "Does a black cat crossing one's path give bad luck?" "Does death end personal existence?" "Is the Golden Rule a practical concept of human relations?" The subjects in the experiment rated these propositions on a scale, ranging from a value of plus ten, which allowed for no doubt whatever as to its truth, through zero to minus ten, which indicated no doubt as to the falsity of the proposition.

On another occasion the subjects rated the same propositions on a similar scale as to their desirability, ranging from plus ten, which is highly desirable, to minus ten, which is highly undesirable. In the final series they made a rating as to the extent to which the state-

¹ Lund, F. H. "The Psychology of Belief; A Study of its Emotional and Volitional Determinants," *Journal of Abnormal Psychology*, 1925, 20, 63-81.

ment was a matter of opinion or based on evidence. The subjects merely divided 100 per cent between these two alternatives — for instance, they might say that a given proposition was based on opinion to the extent of 75 per cent and upon evidence to the extent of only 25 per cent.

With the propositions rated in this manner it was possible to rank them separately for belief, desire, and evidence. Data were secured from four different groups of students in New York City and also in Nebraska, a total of 243 subjects. The most interesting portion of the results is given in Table 6.

TABLE 6. RELATION OF BELIEF, DESIRE, AND EVIDENCE *

Reliability — average intercorrelations for belief.....	.89
Reliability — average intercorrelations for desire.....	.87
Belief-desire: average of all correlations.....	.81
Belief-desire: correlation between combined ranks.....	.88
Belief-evidence.....	.42
Desire-evidence.....	.03

* Lund.

The first two correlations (see page 28) in the table give an indication of the reliability of the data. For instance, the rank order for belief obtained by the first group of students was correlated with the rank order obtained by the second group. This was done for all the possible combinations of groups. These intercorrelations were then averaged to get the .89 shown in the first row of the table. Obviously, the different groups agreed with one another rather closely as to the order of belief. Similar computation for desire indicates a correspondingly high degree of reliability. Then, for each separate group the rank orders for belief and desire were correlated and these correlations were averaged for all the groups, yielding an average of .81. Again, in order to approach this correlation from a different angle, all the ranks of the different groups were combined into a single rank for belief and a single rank for desire, and when these were correlated the result was .88. Then the ranks for belief and evidence were correlated for the available data which did not, however, involve the entire group of subjects. The result was .42. Finally, the correlation between desire and evidence was only .03. Thus, the experiment bears out the fact that belief is much more closely related to a person's wishes than it is to actual evidence.

Convincing the Prospect. The implication of these findings for the advertiser is that it may be quite possible to make the prospect

believe something without resorting to an intellectual process. A rather lugubrious example is contributed by a company which makes high-priced caskets. In the winter months they are able to sell a special satin blanket with about fifty per cent of the caskets, but they sell practically none of them in the summer. Sometimes a collection of words which the prospect does not understand at all will suffice to create belief. A safety-razor concern advertised a new model with a "fulcrum shoulder and a channeled guard, so that the blade has a major and a minor flexure, and can be adjusted to one one-thousandth of an inch." Some persons who were shown the advertisement felt that the razor was distinctly improved, and that they would be willing to pay more for it. However, when they were questioned more rigorously as to the nature of these improvements, it developed that they had no understanding whatever of the mechanics of the razor. The fulcrum shoulder and the channeled guard evidently meant nothing to them but "better razor." If they had been told that it incorporated binocular parallax the result would probably have been the same.

Another instance of a campaign which succeeded because the consumer failed to consider the copy critically from the logical standpoint is the series about pyorrhea and tooth paste. The copy ran for a long while to the effect that four out of five persons had pyorrhea, presumably as a result of their failure to use this particular dentifrice. After several years the figures, according to the advertisements, were still four out of five, although, if the tooth paste had been at all effective in checking pyorrhea the proportion should have been reduced to 3 out of 5 or even less. However, this point completely escaped the average consumer, and the probability of his being among the eighty per cent was the fact that impressed him. Another case is the gasoline slogan, "Always up front with the big fellows — a secret the whole world can get in on." The critical reader might wonder who would bring up the rear if the whole world was in front. The average reader, however, does not carry the argument to its logical conclusion.

Overdoing Technical Discussion. In employing the technique of producing conviction through mere impressive words it is wise to avoid overdoing it by making the technical description too elaborate and too extensive. The following excerpt is from an advertisement for spark plugs: "The core, flaring outward from its tip to carry off heat from the tip and minimize pre-ignition, having a restricted

portion of substantial length above said flaring portion to retain sufficient heat to eliminate deposited carbon, flaring from the upper end of said restricted portion to said seating surface, presents an undulating surface from seat to tip to avoid disturbance of heat distribution . . ." etc.

Overstatement. There is a limit to the reader's credulity, so that if the statements are sufficiently extreme he may suddenly begin to exercise a little reason in evaluating the advertisement. If it is claimed, for example, that a fountain pen was intact after being run over by a steam roller, the average adult will become skeptical. It is unnecessary to make this test anyway, because there is no point in having such a durable pen. We do not throw pens in the paths of steam rollers, or drop watches and lawnmowers from airplanes or push thermos bottles from skyscraper windows with sufficient frequency to make it desirable to build a product to withstand such punishment. The practical point is that if the reader's credulity is taxed too much, whether or not the statements are true, he is likely to resort to logic and feel that the advertising is fraudulent. It is inadvisable to trifle with good-will in this manner.

Studies of Reader Skepticism. The question naturally arises as to how far it is wise to strain the consumer's credulity. The only empirical answers are embodied in a few brief studies in which groups of people have been given sets of advertising claims and asked to indicate those which they thought true. For instance, 100 engineers indicated whether they believed or did not believe the following statements, or whether they had no opinion regarding them one way or the other. The figures given are the percentages who believed some typical claims. A certain antiseptic reduces the risk of colds one half, 33 per cent; those who did not gargle with it had three times as many colds, which lasted four times as long and were four times as severe, 25 per cent; a book on salesmanship raised a man's salary 700 per cent, 4 per cent; teeth were three shades whiter in three days, 5 per cent; a cereal now enriched with Vitamin B actually creates eager appetites, 12 per cent; an antiseptic goes three times as far as others, 18 per cent; a health drink enables one to get instant sleep entirely without drugs, 7 per cent.¹

A similar investigation comprised 165 interviews conducted by a market research corporation. The subjects were merely asked

¹ Link, H. C. "Does Believability Stimulate Buying?" *Advertising and Selling*, March 2, 1932, 18, 26-27.

whether they thought the item was true, or untrue, or didn't know. The following percentages indicate the proportion of those who thought the item was untrue. Certain nose and throat drops stimulate cold-fighting function, 30 per cent; a pink toothbrush is a forerunner of gingivitis, 26 per cent; nine out of ten movie stars use the product, 68 per cent; a product saves 12 per cent on gas and increases pick-up ten to twenty-five per cent, 70 per cent; the product is more than twice as effective as other tooth pastes, 79 per cent.¹

In another study excerpts from advertisements were given to 1000 people, a more random sample. They were asked simply, "Does the statement ring true?" The following per cent thought that the statement did ring true. People who gargled twice daily with a certain antiseptic had one half as many colds, 52 per cent; a chewing gum enhances the beauty of mouth and lips through exercise of the muscles, 5 per cent; a liniment relieves pain almost instantly, 64 per cent; a proposition that will enable one to earn \$1.50 for every hour he puts in, 15 per cent; instant sleep without drugs, endorsed by 20,000 physicians, 21 per cent.² Some statements evidently are believed by the majority while others arouse almost universal skepticism.

No general principles are apparent in these studies. There is a hint of greater gullibility on matters that necessitate technical knowledge for a critical evaluation, for instance, medical claims as against alleged increases in earnings. The data do not warrant a final generalization on this point.

News Item as Compared with Advertisement. An advertising program centering around some dramatic test of the product may be presented as a news item rather than as a paid advertisement. The press may be invited to witness the throwing of the lawnmower from the airplane or the placing of a pen under the wheels of the bus. Occasionally the story is featured in the news columns in as much detail as it would be in an advertisement. The question arises as to the possible superiority of this technique. The laws of suggestion would indicate such superiority. Reading the item in the news columns is disarming and constitutes an indirect suggestion (cf. p. 53), whereas a more critical attitude toward an advertisement is probable.

One brief experiment approached this question of news item as

¹ Moore, B. "Is Seeing Believing in Advertising?" *Advertising and Selling*, May 10, 1934, 23, 30 ff.

² Anon. "Credulity in Advertising," *Advertising and Selling*, July 7, 1932, 19, 28.

compared with advertisement. Copies from three rather extreme advertisements such as a trunk on which an elephant was able to stand without harming it and a thermos bottle that fell from a high window were recast into news form. Each item began, "The following is an extract from the — *Magazine*; read it carefully. . . ." The subjects rated these alleged news items with reference to belief, doubt, or disbelief. On another occasion the actual advertisements were rated in the same way. The results are shown in Table 7,

TABLE 7. PER CENT DOUBTING EXTREME ADVERTISING CLAIMS *

Advertisement	Advertising Copy	News Item
A.....	28	43
B.....	27	43
C.....	55	40
Average.....	37	42

* Poffenberger.

which gives the percentage who doubted the claim under the conditions indicated. Two of the advertisements (A and B) were doubted more frequently when in the news form, and one (C) less frequently, and the average percentages are quite similar. The results are not convincing one way or the other.¹ The experimental technique is also open to question on the ground that the subjects merely were told to assume that the statement was a news item and were not confronted with it in the actual news columns of the magazine or newspaper. However, there is nothing to indicate the inferiority of the news technique, and as it costs nothing it would seem worth while to utilize it when feasible.

Qualitative information on this matter of overstatement may be obtained by asking people to submit advertisements which they think are exaggerated to the extent of causing skepticism. This procedure yields no information as to the amount of skepticism in terms of the percentage who doubt, but it does give a series of claims that at least somebody doubted. A typical collection includes the following: A horse and rider entering the door upon a waxed floor without damaging the latter; a rhinoceros led by a small child doing the same thing; two men pulling in opposite directions on a necktie which can be tied attractively thereafter; the largest malted milk in

¹ Cf. Poffenberger, A. T. *Psychology in Advertising*, p. 554. New York, McGraw-Hill, 1932.

the world; instant relief from stomach ulcers; a soap that led one from snubs to smiles; a chewing gum that gave beneficial facial exercise for a cent; a boy who stoked a liner when three other stokers gave out and helped break a record, all because he had eaten a certain breakfast food since childhood.

Auditory as Compared with Printed Overstatement. Although extreme statements are of dubious value in printed copy, they are still more questionable in verbal advertising. In early life one is taught to believe what he sees in print, but has numerous experiences with things that are presented verbally and are subsequently discovered to be incorrect. This does not mean that verbal statements in everyday life are more erroneous than the average printed statement, but it is possible that they are more frequently discovered to be erroneous. At any rate, the average person does feel a little respect for printed statements, whereas the spoken statements seem to him somewhat more fallible. Although no experiments have been made upon the point, we surmise that statements which arouse skepticism in print would certainly arouse as much skepticism, and possibly more, when presented verbally over the radio.

Conclusions Regarding Creation of Belief. The practical point of all this is that copy should sound truthful. The reader may sometimes be convinced without any reasoning process merely by the impressive sound of the description, or the statements may ring true as far as he is concerned and actually convince him in logical fashion. But there is a danger that an advertisement by an extreme statement may arouse definite doubt on the reader's part. One advertiser wrote his "most productive advertisement in fifteen years" by noting the apparent exaggerations of his competitors and making his copy very unspectacular and brief.¹ If an advertiser employs some technique for testing copy it should be possible to secure, in addition to the usual information about attention value and general appeal, some indication as to the probable belief of the public in the statements proposed. If no such testing technique is available, it is better to err in the direction of conservatism.

Increasing Use of Long Circuit. A pronounced trend may be noted in one type of long-circuit appeal during recent years. A tabulation was made of an October issue of the *Saturday Evening Post* in 1921, 1925, 1929, and 1933. In the first of these years, 62 per cent of the layouts were in conventional style and in 1933 only

¹ Powers, M. K. "Aim Your Copy at Missouri," *Printers' Ink*, September 15, 1932, 160, 3 ff.

42 per cent. On the other hand, the semi-editorial type, which is definitely a long circuit, appeared not at all in 1921, and by 1933 constituted 26 per cent of the advertisements. This increase in the use of a long-circuit approach during the lean years is of some interest, although the interpretation is not particularly clear. It may be that during a depression people have more time to read long-circuit appeals, or that they are more careful about what they buy and must be convinced in logical fashion.¹

ORDER OF PRESENTING LONG-CIRCUIT APPEALS

A problem arises in connection with long-circuit copy as to the order of presentation of the items, particularly with reference to whether it is desirable to begin by emphasizing the need or by presenting the actual solution for that need. The following experiment concerns this problem.² Forty advertisements were used in the experiment, two for each commodity, one emphasizing the want and the other the solution. For example, for a throat antiseptic the want advertisement said, "The Party She Missed," whereas the solution advertisement began, "A safe antiseptic." The want advertisement for garden hose began, "Don't take your shower bath in the garden," and the other, "Six protecting plies." Fictitious trade names were used, and the copy was organized in a booklet. Errors due to greater interest in a particular commodity were controlled by including two advertisements for each commodity, one want and one solution. Half the time a given want advertisement for a commodity preceded its corresponding solution advertisement in the booklet. The subjects looked through the booklet with a time limit in the manner in which they would ordinarily look through advertising. Thereupon they were tested as follows: (1) They were asked to recall the trade name without any further help; (2) they were given a list of the products such as throat antiseptics or garden hose and asked to recall the trade name; (3) they were shown all the trade names which had been involved, together with an equal number which had not been presented, and were required to pick out the ones which they remembered having seen. The recognition data were scored in two ways, (1) correct recognition and (2) total recognition, whether

¹ Giellerup, S. H. "What the Depression Years Have Done to the Ads," *Advertising and Selling*, August 30, 1934, 23, 25 ff.

² Strong, E. K. Jr., and Loveless, J. E. "Want and Solution Advertisement," *Journal of Applied Psychology*, 1926, 10, 346-366, also 1927, 11, 8-24.

correct or incorrect. In a subsequent series subjects who looked through the booklet were tested by means of a group of paragraphs taken from the advertising copy. They were required to recognize the paragraphs and to supply the trade names which had been indicated by the dashes in the paragraphs — a type of “completion test.” They were also given sentences which had been taken from the copy and were required to recognize them.

The data from these experiments are summarized in Table 8.

TABLE 8. COMPARATIVE EFFECTIVENESS OF FEATURING THE WANT OR THE SOLUTION *

	Want	Solution	Per cent superiority of want
Trade-name recall — unaided.....	24	19	26
Trade-name recall — aided.....	34	30	13
Trade-name recognition — correct.....	77	74	4
Trade-name recognition — total.....	68	63	8
Paragraph recognition.....	45	36	25
Sentence recognition.....	38	25	52
Trade-name “completion test”.....	16	14	14

* Strong and Loveless.

The successive rows give the various methods of score just described. The first column of figures gives the average score on the want advertisements; the next column, the corresponding figures for the solution advertisements, and the last column, the superiority of the former to the latter. In unaided recall of a trade name, for example, an average score of 24 was made by the subjects for want advertisements as compared with an average score of 19 for the solution advertisements, and the former is 26 per cent superior to the latter.

All the methods of analyzing the data agree in showing the desirability of beginning the advertisement with a statement of the want or need rather than its solution. The smallest difference is for correct recognition of trade names and the largest one is for recognition of sentences from the advertising copy. The experiment involved the attention and interest value of the advertisement as well as its appeal. However, these characteristics are somewhat related, in the present experiment at least. The subjects in a supplementary series were called upon to arrange the commodities (no trade name was supplied) in order of merit, according to the order in which they would buy them, assuming that they had the money. The average order of merit for a subject was then correlated with his order of

merit, based on the recall of those same commodities in the experiment proper. The average correlation was .61.

The main conclusion of the experiment appears plausible. The statement of need is apt to include more of the dramatic, whereas the initial presentation of the commodity is usually colorless and uninteresting. The former alternative involves a better initial control of attention. Furthermore, the sequence of behavior with reference to the commodity normally is from want to solution. The consumer finds himself out of shaving cream and then makes a decision regarding a particular brand. We shall see in a later chapter that associations between two items function more readily in the order in which they are initially formed, for example, it is easier to repeat the alphabet forwards than backwards. Consequently, if a consumer is ultimately going to have his association process function from need to solution it is logical to present the items in that same order in the advertising.

RATIONALIZATION APPEAL

A final type of appeal involves a combination of the long and the short circuit. The product is sold by the short circuit, and then the buyer is given, in the remainder of the same advertisement, reasons to justify and to strengthen him in his decision. This procedure is sometimes called rationalization, and is a very common tendency in everyday life. We do something for instinctive reasons, and then try to justify it by an intellectual process. We lock the desk and go to the links because it is a pleasant afternoon and we feel like it, but we tell the office force we need the exercise. The student goes to the theater when he ought to be studying, but attempts to convince himself that he will make up for the lost time by greater efficiency after the relaxation.

The same mechanism operates in more abnormal cases. A person with claustrophobia is afraid of going into enclosed places, which attitude even makes him uneasy in a closed car, with the result that he buys an open car, although he lives in a rigorous climate. However, he rationalizes his idiosyncrasy by telling his friends about the benefits of fresh air and the avoidance of carbon monoxide. The patient who has a delusion that he is being persecuted by the former Kaiser of Germany attempts to explain it by recalling some remark which was once made at a social gathering during the war.

Similar mechanisms operate in selling. If a man buys an automobile owing to jealousy of his neighbor, the salesman will do well to go further and show him that he will get better mileage or that he must keep up appearances for business reasons, so that after all he will feel that it was a good investment and will not be dissatisfied. Much clothing is sold because of its smart appearance, but the sale is supplemented with additional considerations of durability. The electric refrigerator is bought originally because of the delicious frozen desserts, but this point is supplemented by afterthoughts regarding economy.

This procedure does not imply endorsement of the practice of selling a man something which he does not want. The point is that if a customer buys a product without good reason, he may become dissatisfied with his purchase and consequently with the product in general. In order to forestall this dissatisfaction, the producer will do well to indicate points concerning the article which will show the consumer that actually he has not made a worthless purchase.

SUMMARY

The long-circuit appeal gives the public information regarding the product or reasons for purchasing it. The information may pertain to uses of the product, the process of manufacture, the personnel of the firm, or the raw materials. Specific information is preferable to generalities and, if statistical in character, may well be dramatized.

Reasoning is not always necessary for the creation of belief. Experiments indicate that beliefs are more likely to be formed by emotional than by intellectual factors. By the use of a technical description which the readers did not understand, advertisers have convinced customers that a remodeled product was superior. Even illogical arguments may be successful because they are not considered critically. If gross overstatements are made, however, there is a danger that the reader will become skeptical and thus critical. Descriptions of too technical a nature may be impressive, but may create ill will. The consumer's skepticism is an even more serious problem in verbal advertising, such as that done over the radio, than it is in printed statements.

In long-circuit copy the question sometimes arises as to the comparative merits of beginning with the actual need and with the solution for this need. Experiments indicate the superiority of the

former procedure. Finally, the long-circuit and short-circuit appeals may be combined by making the sale on the basis of the former, and then long-circuit reasons may be added to strengthen the purchaser in his decision. This process of rationalization is conducive to subsequent satisfaction.

CHAPTER VII

WHICH APPEAL TO USE

THE preceding chapters have outlined some of the possibilities for the advertiser confronted with the problem of appealing to the consumer in such a way as to induce him to purchase the commodity. It was noted that he might employ suggestion to build up vividly the idea of buying the product; that he could appeal to some fundamental drive, such as hunger, sex, or fear or some acquired motive such as popularity; or that he might appeal to the more intellectual side of the prospect and give him specific information about the product or reasons for purchasing it. The question now arises as to which appeal to use. The advertiser should not choose methods at random. Aside from the intrinsic merits of the appeal used, its effectiveness depends upon two broad considerations, the prospective buyer and the product. In the first place, an appeal which is entirely satisfactory for one prospect may be utterly useless for another. If his intelligence quotient is less than .70 it is unwise to confound him with calories and vitamins or ultra-violet radiation. One of the characteristics of low intelligence is a limited vocabulary, and such an individual would be unable to grasp complicated concepts such as those mentioned. The intellectually competent reader or one with a scientific curiosity might be stimulated favorably by such appeals. In the second place, an appeal which is well adapted to one commodity may be entirely inappropriate for another. It would be absurd to feature the beauty of barbed wire. Rather, better results would be obtained through presenting considerations of durability. The following discussion will consider first the effectiveness of appeals in general and then the adaptation of the appeals to products or to individual prospects.

An unfortunate aspect of this whole question of the comparative value of appeals is that it is impossible to proceed in an entirely objective fashion. As suggested in the second chapter, while certain advertising problems lend themselves very well to objective experimentation in the laboratory, the study of appeals necessitates the subjective procedure of securing the individual's statement of

preferences or, worse still, of how he probably would react to proposed alternatives. The investigation of coupon returns will indicate that an advertisement embodying some particular appeal calls forth greater action than one with a different appeal, but in practically all such investigations the advertisements in question differ also in numerous other respects. If the experiment is to be reduced to just one variable, which has been suggested above as the only scientific procedure, it is necessary to consider the appeals in subjective isolation. Statements regarding subjects' motives and desires may be handled in careful statistical fashion and the results will be worth something, but they will still fall short of the objective experiments which are the ideal of the psychologist. The present chapter will discuss briefly, however, some of the results obtained by asking subjects to make a judgment regarding various aspects of advertising appeals.

MOTIVES IN GENERAL

The first question to be raised pertains to the comparative strength of the motives under investigation. It might seem offhand that if a certain motive such as hunger is a very compelling one in daily life, by the same token it will be effective when used in advertising. The scientist, however, would consider such an assumption merely an hypothesis, would determine the consensus regarding the effectiveness of these motives in general, and would then compare the results with judgments as to their potency in advertising.

Experimental findings are not sufficiently positive and conclusive to warrant extensive treatment, but results of some investigations will be presented. Data on the strength of motives in general were secured by Starch.^{*} He provided a list of forty-four motives to action and had them rated by seventy-four men and women. The raters were instructed, "Ask yourself in connection with each one how important it is in determining your own actions from day to day." They rated these motives on a scale from 1 to 10. A portion of the results are included in the first column of Table 9. The motive listed at the top of the column was given the highest average rating, the one below that was next in average rating, and so on. The numbers appearing in the first and last columns will be explained later. The entire forty-four motives are not included,

^{*} Starch, D. *Principles of Advertising*, p. 273. Chicago, Shaw, 1923.

TABLE 9. COMPARATIVE EFFECTIVENESS OF APPEALS

Starch	Hollingsworth	Adams	Poffenberger
92 Appetite (hunger)	Health	Durability	83 Appetite
85 Love of offspring	Cleanliness	Sanitary	73 Family affection
81 Health	Scientific	Efficient	66 Protection
77 Sex attraction	Time saved	Appetizing	61 Sympathy
75 Parental affection	Appetizing	Time saved	56 Health
73 Ambition	Efficiency	Value	52 Economy
71 Pleasure	Safety	Scientific	48 Recommendation
69 Bodily comfort	Durability	Ambition	44 Activity-sport
67 Possession	Quality	Family affection	39 Conformity-fashion
65 Approval by others	Modernity	Safety	34 Superiority-ambition
64 Gregariousness	Family affection	Evolution	27 Group spirit
63 Taste		Sympathy	17 Beauty and attractiveness
61 Personal appearance			
60 Safety			

but some of those at the head of the list will suffice for comparison with other studies. Some differences were found when the data were analyzed according to the sex of the raters, but these differences are not of interest in the present connection. A separate discussion of sex differences occurs in a later chapter, but for the present both sexes are combined in the averages.

If these data may be taken as an indication of the comparative effectiveness of motives in general, the next step is to compare them with similar data obtained when the motives were rated with reference to their presumed effectiveness in advertising. A study of the latter type was conducted by Hollingworth.¹ The appeals were rated with reference to advertising, but were kept in the abstract rather than being related to particular commodities. Instead of giving merely the name of the motive or appeal a short paragraph was provided similar to the following: "1-W-5. Durability. Combine utility with durability by using 1-W-5. It lasts one third longer than the ordinary article. Stands the wear and tear of constant use, combining equal quality with greater permanence and longer service." "1-V-3. Safety. Avoid danger by using the only absolutely safety built, acid-proof 1-V-3. Do not court danger by taking chances. This is the only 1-V-3 in which you can get all of the protection and none of the risk."

Fifty different appeals of this general type were ranked by the subjects according to their "persuasiveness, that is, according to the degree to which they make you desire the article or convince you of its merits." Effort was made to abstract the consideration entirely from the product, although the extent to which the subjects were able to do so may have been a variable factor in the experiment. The combined ranks for these appeals were obtained with a group of fifty persons of both sexes. In a later evaluation of these data, Hollingworth combined them into twenty-nine groups, taking into account the fact that some of the appeals are closely related. A few of these twenty-nine motives appear in the second column of Table 9.

The same material was employed with other subjects by Adams.² He had a sample of sixty persons of both sexes and found a fair agreement with Hollingworth's results. For the men he obtained a correlation of .80 and for the women of .61 between his data and

¹ Hollingworth, H. L. "Judgments of Persuasiveness," *Psychological Review*, 1911, 18, 234-256.

² Adams, H. F. *Advertising and Its Mental Laws*, p. 130 ff. New York, Macmillan, 1921.

Hollingworth's. Using the entire fifty appeals, he presents a combination of his results and Hollingworth's, a portion of which appears in the third column of the table. Here again, the appeal listed at the top of the column is the one which received the highest rating on the average, the one below that, the next highest rating, and so on.

A survey of the actual copy used in the abstract appeals of Hollingworth and Adams indicates difficulties in interpretation which may have influenced the subjects. With the health appeal, for example, it may make a difference whether it features good health or the avoidance of poor health; with sympathy, something may depend on whether the object is an animal or a human being. Poffenberger scrutinized the original copy and attempted to classify the appeals under a dozen headings based on the actual copy, rather than on the mere name which prefaced it.¹ He then subsumed all the data of Adams and Hollingworth under these twelve classifications and derived the rank order which appears in the last column of the table. If it is assumed that this last hierarchy is the best available with the data thus far collected, the principle comparison should be made between the first and the last column. This comparison should make it possible to determine how the motives of everyday life function in the advertising situation, and the extent to which conclusions may be drawn from the former regarding the selection of advertising appeals. It is difficult to make adequate comparison owing to the fact that the first column contains the original data for forty-four items and the last one for only twelve. However, it is possible by appropriate statistics to convert ranks into linear scores so that the forty-four items, for example, may be considered as distributed along a scale of 100 points.² These linear scores are given in the table preceding the items in the two columns in question. If the same number appears in both columns it indicates that the two corresponding items occurred at approximately the same position on the distribution of judgments. Some of the motives show agreement in the two lists. Appetite, for instance, ranks 83 in one and 92 in the other. Family affection has a rating of 73 on the advertising list, corresponding to either 75 or 85 in the everyday list. Protection, with a figure of 66, is somewhat related to safety, with a value of 60. Health, on the other hand, is

¹ Poffenberger, A. T. *Psychology in Advertising*, p. 95. New York, McGraw-Hill, 1932.

² Cf. Hull, C. L. *Aptitude Testing*, p. 491. New York, World Book Company, 1928.

rated toward the top in everyday life, but drops to 56 in the abstract. Ambition shows considerable discrepancy, being 73 in the everyday and only 34 in the advertising distribution. Unfortunately, Hollingworth's abstract appeals did not include sex attraction specifically, although it was mentioned in the copy regarding personality. In view of its overwhelming use in modern advertising, it would have been interesting to have material on that appeal. If the attempt is made to select for each item in Poffenberger's final list the name most nearly corresponding to it in Starch's original list and their linear indices are correlated, the result is a coefficient of .60. However, in view of some individual discrepancies of considerable magnitude, it would seem that the safe procedure is to investigate the appeals with reference to the advertising situation rather than to attempt to infer their practical value from everyday reactions to such appeals. A situation might arise in which a number of appeals had been investigated with reference to particular commodities and all seemed equally suitable. In such a case it would be sound practice to make the decision on the basis of which of those appeals was the most outstanding in general. This procedure, however, involves the initial narrowing of the problem to a number of appeals which would be suitable for the product.

Still other shortcomings may be noted in this procedure of ranking the different appeals. Many subjects will hesitate to admit the importance of some types of motivation because of the taboos of conventionality. The rôle of sex is a case in point. In other instances the subject may rationalize his answer rather than give the real one, which might seem to reflect upon his intelligence. He may actually select his tooth paste by its flavor but refuse to admit the potency of such a lowly motive, and will fabricate some explanation such as dentist's recommendation or whiteness of teeth. Again, it is often difficult to reinstate the emotion which was present originally in connection with an experience. One may have been profoundly moved by sympathy on certain occasions in the past, but it is difficult in retrospect to recall that feeling and evaluate it adequately with reference to the motivation of other feelings. Furthermore, many of the subjects in such experiments are advertising-conscious, and find it difficult to distinguish their fundamental preferences and motives from rationalizations which they have been taught to believe are effective in influencing them.

MAGAZINE SURVEY

The above technique attempted to secure information on the effectiveness of appeals by asking the subjects specifically how they felt about the various motives. Another technique has been used to approach the same problems objectively, but the results are complicated by the presence of other variables. The method devised by Gallup consists of ringing doorbells, displaying current magazines, conducting the person being interviewed through any magazine he or she admits having read and noting for each page replies to the queries "Did you notice?" "Read part?" "Read all?" An analysis was made of full-page black and white advertisements with reference to the appeal involved, assuming that the other variables would be canceled in the averages.¹ The appeals were ranked in order of frequency of use, and also according to the percentage of advertisements embodying each type of appeal that was noted by the readers, male and female separately. It is difficult to say exactly what these latter rankings represent. They are based on the frequency with which the reader, when interviewed and shown the magazine, recalled having seen that particular advertisement. It must have caught his attention originally, but whether because of the appeal or something else in the layout cannot be determined. The word "stopping power" is often used by those conducting such surveys, which seems to imply an emphasis on attention. Then there is the possibility that interest in the appeal caused the reader to linger and get a more lasting impression. It is impossible satisfactorily to disentangle the different variables. It is a plausible assumption that the actual appeal is an appreciable factor in causing the reader to recall having seen the advertisement, and tabulating the data on the basis of appeals at least brings out this variable at the expense of the others, which qualification must be borne in mind. The results are summarized in Table 10.

The ranks mentioned are given in the three columns of the table. The present interest is in any possible correspondence between results with this method and data obtained by direct judgments of the subjects regarding the appeals. The ranks in the last two columns of the present table may be compared with the order of merit

¹ Blumberg, R., and Rheinstrom, C. "How Advertising Techniques Are Rated by Gallup Survey," *Printers' Ink*, March 24, 1932, 158, 17 ff.

TABLE 10. APPEALS IN MAGAZINE ADVERTISING *

Appeal	Rank for Frequency of Use	Rank for Percentage of Men Noting	Rank for Percentage of Women Noting
Economy.....	1	8	9.5
Efficiency.....	2	9	9.5
Emulation.....	3	4.5	4.5
Novelty.....	4	4.5	8
Quality.....	5	1	3
Fear.....	6	3	6
Health.....	7	10	4.5
Ambition.....	8	7	7
Sex.....	9	2	1
Vanity.....	10	6	2

* Blumberg and Rheinstrom (after Gallup).

given in Table 9. In the present case a small figure indicates a high rank whereas, in the preceding table the large scale-value represents superiority. Sex, for example, ranks practically at the top in the magazine experiment and also receives a fairly high rating in Starch's original data regarding the strength of motives in everyday life. It was not included specifically in studies with abstract appeals, so that no comparison is possible. Ambition is ranked somewhat below the average in the present case, and is correspondingly low in Poffenberger's evaluation of data on abstract appeals. Economy ranks very near the bottom in the present instance, but is near the middle of the distribution in the former study. Vanity in the magazine investigation is somewhat above the average, but if the item of beauty and attractiveness in the previous study is comparable, a marked discrepancy is noted, because the latter ranks in last place. No other comparisons between the two studies are possible because of differences in the actual types of appeals included. The results are inconclusive. Correspondence of the two techniques is noted in a few cases but discrepancies predominate.

It is of some interest to conduct a similar survey in different years, with a view to determining changes in the reactions to the advertisements. Such a survey by Percival White, Inc., in two successive years employed essentially the method described above with *Liberty*, *Collier's* and the *Saturday Evening Post*.¹ Many of the classifications employed are the same as those in Table 10. Ambition was below average in "stopping power" in 1931 and went

¹ Rheinstrom, C. "What Stops Ad Readers Today," *Advertising and Selling*, October 13, 1932, 19, 23 ff.

above average in 1932. Vanity rose from sixth to fourth place for men and from second to first for women. Novelty increased in value for women. Efficiency shot from considerably below the average in 1931 to appreciably above average in 1932. Economy advanced somewhat in value, although it was still well down in the list. Other appeals which did not change much in absolute terms, but decreased somewhat comparatively were: emulation, fear, sex, and quality.

Such changes in the results within a short period are disquieting from the scientific standpoint. It is possible that the effectiveness of the appeals actually does change in the interval. If this is the case, the advertiser must be everlastingly alert to such changes, survey the consumer's attitudes periodically, and alter his appeals in accordance with the current trend. On this basis, some of the facts brought out thus far in the discussion of the comparative merit of appeals would be of practical value. Another possible explanation for the change in results in two successive years is the ubiquitous error of sampling. If the persons interviewed in either case were not particularly typical of the entire population, some reversals would be expected statistically. It would be possible to determine if the sampling was adequate by adding successive increments to the sample until several additions made no appreciable difference in the results. Still another explanation is that other variables than the appeals were involved in causing the women to recognize certain advertisements as having been experienced before. The advertisements emphasizing quality, for instance, may have stopped more readers than those featuring economy, not because of the difference in appeal but because the former advertisements had more interesting pictures, a better layout, more white space, or any one of the numerous devices for arresting attention which will be discussed in later chapters. A serious difficulty in the psychological approach to advertising problems when employing actual advertising copy is the control of such extraneous variables. It would be difficult in the present case to devise advertisements which differed only in appeal and had everything else in the layout identical. Even if this could be done, it would be impossible to have such advertisements run in the regular magazines and then investigated by house-to-house interviews. Techniques such as the present may be of more value to the business man in rating the advertisement as a whole than to the psychologist

attempting to analyze the factors which influenced the reader. Quite apart from classifying advertisements according to appeal or pictures or any other factor, it is often interesting to know how many people were actually stopped by a particular advertisement. If a concern has been using different advertisements at different periods or in different media, information as to their stopping power may be very pertinent. However, from the standpoint of analyzing psychological factors, the encroachment of numerous other variables militates against an entirely satisfactory solution of the problems.

SPECIFIC COMMODITIES

The discussion up to this point indicates that the advertiser should not attach too much significance to studies of motives in general, but, where feasible, should investigate them with reference to advertising. A further problem arises as to the extent to which data regarding the effectiveness of abstract advertising appeals is applicable to the preparation of copy for specific commodities. There is no *a priori* guarantee that because the appeal to family affection, for example, is comparatively strong in the abstract it would therefore be among the best appeals for selling shoes or pianos. This problem may be approached experimentally. Adams analyzed the comparative value of a number of appeals which had been investigated in the abstract and also with reference to some specific products.² The original data are presented in the form of ranks, which makes it difficult to compare the relative standing of an appeal which is ranked fifth in a group of five with that ranked fifth in a group of nine. To circumvent this difficulty and make the results more comparable the different ranks were transmuted into terms of a linear scale (cf. p. 115). The data so transmuted appear in Table II. In each column the entry represents the scale value for the product in question in comparison with the other products for which entries appear in that same column. A table like this with numerous blanks leaves much to be desired, but some cross comparisons may be of interest.

The first thing to be noticed is the frequent discrepancy between the standing of an appeal in the abstract and when applied to a specific commodity. For example, the family appeal ranks high for the abstract but low for breakfast food. Economy is near the

² Adams, H. F. *Op. cit.*, p. 147.

TABLE 11. SCALE VALUES FOR APPEALS *

	Abstract	Breakfast Food	Clothes	Shoes	Typewriters	Soap	Pianos	Soap (farmers)
Description of product.....	85	81	79	66	66	69	37	19
Sympathy.....	74							
Family.....	68	38				56	77	69
Ambition.....	63		66		79			
Welfare.....	59	59		79	57	81		44
Size of firm, etc.....	55	44	43	57	50	50		56
Social advantage.....	52		34					
Amusement.....	48						54	
Economy.....	45		21	21	43	31	63	50
Popular, stylish.....	41	50	57	43		44		62
Co-operation.....	37	31	50	34	34		46	
Recommendation.....	32	62			21	38	23	31
Beauty.....	26					62		38
Admiration, personality.....	15			50				
Process of manufacture.....		56						
Free souvenir.....		19				19		81

* Adams, and others.

middle in the abstract but much farther down with reference to clothes or shoes, and somewhat higher with reference to pianos. Recommendation has a high rank for food but a low one in the abstract. These data, so far as they go, indicate that one should proceed cautiously in applying the results of studies of appeals in the abstract to the selection of appeals for particular commodities. Further examination reveals pronounced divergence between different products. With the description of the product, breakfast food takes the highest rank. Ambition looms largest with reference to typewriters. Welfare of the individual is most pronounced comparatively with reference to soap. Co-operation, while not pronounced for any commodity, ranks comparatively higher for clothes than for certain of the other items. The appeal to beauty gets a fairly high rating for soap, and the free souvenir attracts a group of farmers in an advertisement for soap. These data suggest that the problem of selecting appropriate appeals necessitates studying their comparative value with reference to the specific commodity. If one were to generalize on the basis of these meager data it might be suggested that the value of economy as an appeal depends on the cost of the product, that recommendations are more effective for food products, and that the selfish appeals are especially appropriate for articles such as soap and shoes which affect the appearance of the user.

Various studies have been reported in which a series of appeals was rated by judges with reference to a single product. For example, twenty-four pieces of copy for tooth paste were prepared and submitted to a group of judges who ranked them.¹ A few of the average ranks are as follows, beginning with the highest: White, beautiful clean teeth, 5.8; clean, healthy mouth, safe dentifrice, 7.4; healthy gums and teeth, 8.7; taste, 9.0; correct acid mouth, 9.5; film, germs, and decay, 9.5; and so on down to the other end of the scale as follows: persons of refinement and fashion use it, 16.5; a large package, 21.0; maximum package, right price, 21.3. Similar rankings of selling points for a toilet soap were secured.² The averages for a group of 95 women were: cleanliness, 2.7; non-irritating, 4.1; health, 5.3; expensive, 6.4; beauty, 8.1; and, at the other extreme, size of the plant, 16.6, and premium, 19.1. A case was cited above (p. 70) of a concern which ran a test campaign

¹ Starch, D. *Principles of Advertising*, p. 289. Chicago, Shaw, 1923.

² Strong, E. K. *Psychology of Selling and Advertising*, p. 370. New York, McGraw-Hill, 1925

for a proprietary medicine and compared the sales in each locality with the corresponding sales the previous season. Fear of ill health and old age increased sales 171 per cent, whereas desire for good health produced a 10 per cent loss. Other appeals fell in between these.

The foregoing instances are typical of the investigations that have been or might be conducted as to the effectiveness of the appeals for a particular commodity. If the subjects to whom they are submitted constitute an adequate sampling of the public it is desired to reach, such data may contribute to the writing of successful copy. In the study by Starch just mentioned, the result was an advertisement which, in the headline and also in the text, emphasized the fact that a particular dentifrice produced white teeth. Some advertising agencies go so far as to maintain a jury to which they may submit alternative copy for their advertisements. These procedures, however, embody the sources of error mentioned earlier, such as the difficulty of introspection as to how one would feel, the tendency to conceal one's real motives, and the common practice of rationalizing.

Consumer's Opinion. A technique which avoids some of these difficulties consists of interviewing persons who have already purchased the product with reference to the reasons for their purchase. It is often easier to explain one's past behavior than to predict one's future conduct. Over one hundred customers were asked why they had actually bought a particular gas heater, and eighty-two different reasons for their purchase were listed.¹ A few of the reasons that were mentioned by several users follow, together with the number of times they were mentioned: freedom from tending furnace, 15; recommendation of friends, 10; friends dissatisfied with oil, 9; automatic without oil's drawbacks, 9; eliminates dirt of coal, 8; convenience when traveling, 8. A survey of this type might reveal some of the most effective buying motives that had been operative in the past, and so enable one to select the most potent appeal for the future. Interviews and questionnaires are often used for a survey of this sort. Sometimes a firm conducts a contest seeking reasons for which the participants like the product and a prize is given for the best reason. It may be possible to discover from such data an outstanding interest or selling point which can be

¹ Woodbridge, W. S. "There is Always One Main Advertising Appeal," *Printers' Ink*, February 7, 1929, 146, 145-148.

incorporated in the subsequent campaign. Here again, however, the contestants are inclined to feature the reason that they think will win the prize rather than the reason that pertains to them. Such a contest does yield, however, numerous selling points which may not have occurred to the advertiser and which merit further investigation.

COMBINATION OF APPEALS

It is common practice to include several appeals in a single advertisement. It may talk about the pleasure obtained from driving the automobile through the country, but also expatiate upon the mechanical properties of the car. This combination of appeals is entirely legitimate. One point must be watched, however, namely, the avoidance of appeals which are incompatible and arouse contradictory attitudes on the part of the reader. If the same advertisement features the flavor of a tooth paste along with the prevention of germs and decay, the effect is undesirable. The mention of the taste is designed to arouse pleasant associations and the copy about the bacteria has just the opposite effect. The result is a conflict of feeling, and the reader is not likely to be very seriously affected by either selling point. If the discussion begins with acid mouth this ought to be followed with a statement of the years of research back of the product or with the dentist's recommendation, because these matters are compatible and supplement one another rather than create opposition. One should, furthermore, avoid including too many appeals in one advertisement. We shall see later the limitations imposed by the range of the reader's attention. The experienced advertiser will not attempt to put all his selling points in one advertisement. The novice is inclined to tell the entire story.

GENERAL TRENDS

Data of the sort described in the preceding pages are not sufficiently extensive or convincing to warrant very broad generalization. After all, the necessary procedure is to experiment with appeals for the specific commodity in question. However, Hollingworth has suggested a few pertinent generalizations. He feels that the short-circuit appeal, generally speaking, is better for personal

articles such as toilet goods, gift stationery, things involving luxury, display, and adornment such as jewelry, flowers, fancy dresses, articles that are enjoyed for their own sake, like drinks and musical instruments, things conducive to bodily safety such as antiseptics or insurance, and food products. On the other hand, the long-circuit appeal is necessary for items that involve a more extensive financial outlay. It would be impossible, for instance, to sell a man a restaurant because he is hungry. It would be necessary to take the long-circuit approach and tell him about the investment possibilities. Aside from generalizations such as the above, which divide the problem on the broad basis of long-circuit and short-circuit appeals, writers in this field are hesitant to lay down more detailed principles for adapting the appeal to the product. Whenever it is possible, the best procedure is to investigate the comparative effectiveness of a series of appeals for the particular commodity that is to be advertised.

SUMMARY

Although numerous types of appeal are available, the merchant is confronted with the problem of deciding which one to employ in advertising a specific product. Investigations on this point are subject to the methodological limitation that it is necessary to rely upon the subjective estimate of the individual as to how he would react to a certain appeal.

Data have been collected on the comparative effectiveness of various motives in "determining actions from day to day," and this hierarchy of motives has been compared with a ranking of the "persuasiveness" of similar motives in advertising. The latter appeals were kept in the abstract and applied to products in general rather than to specific items. When the best available data of the two sorts are compared, the general agreement between the two sets of ranks is represented by a correlation coefficient of .60. Some motives such as appetite and family affection show similar standing in the two cases, while others such as health or ambition show marked discrepancy. In view of these discrepancies it seems advisable to investigate appeals with reference to the advertising situation rather than to attempt to infer their practical value from everyday reaction to such appeals. Another difficulty with the whole procedure is that the subject may be reticent in admitting

the potency of some motives in his own behavior, and in other instances may rationalize and stress the motives that ought to influence him rather than those which actually are operative.

When appeals are ranked with reference to specific commodities, numerous discrepancies are observed between such ratings and the ranks for those same appeals in the abstract. It is therefore advisable to study appeals with reference to a specific product rather than to attempt to infer their value from the abstract investigations. Some studies of this sort have been used in preparing copy for certain commodities. The only generalizations which can be made on the basis of such studies are that selfish appeals are appropriate for articles which affect the appearance of the user, that the effectiveness of the economy appeal depends on the cost of the item, and that recommendations are rather successful to use for food products. Generalizing on a still broader basis, one authority suggests that the long-circuit appeal is advisable for items that involve an extensive financial outlay, while the short-circuit appeal is appropriate for personal articles, things involving luxury and display, items enjoyed for their own sake, and things conducive to personal safety. However, it is better, instead of depending on such generalizations, to investigate the comparative effectiveness of appeals with reference to the product in question.

If several appeals are included in the same advertisement it is advisable to avoid the inclusion of combinations which are incompatible or arouse contradictory attitudes.

CHAPTER VIII

ADAPTING THE APPEAL TO THE PROSPECT

OTHER psychological fields besides advertising take account of individual differences. The school child of low intelligence receives additional routine drill on fundamentals, while the child at the other end of the intellectual scale has a more enriched curriculum. The psychopathic criminal is sent to the mental hospital, whereas the normal one goes to prison. The applicant with quick reaction time and with emotional stability is employed as a taxi driver, while the man lacking these characteristics is rejected. In the present chapter we shall examine some of the psychological characteristics with respect to which consumers may differ and according to which the appeal may be adapted.

INTELLIGENCE

The development of mental tests in the era since the war has called attention to the striking differences in intelligence that characterize the population. People are born with considerable variation in their ability to adjust themselves to their environment and in their general alertness and ability to grasp new situations. Everyone is familiar with persons who understand directions the first time or exercise good judgment in an unusual situation and with others who are slow in comprehending what is desired and become confused if the situation is at all complicated. The use of the designation "intelligence" for this variable may be justified pragmatically because the so-called "intelligence tests" measure characteristics of the individual on the basis of which it is possible to make further predictions regarding his behavior in specific situations, such as reading advertisements.

The Binet Test. One of the most widely used tests for measuring intelligence is that devised originally by a French psychologist, Binet, and subsequently translated and revised by Terman and Merrill as well as others. The test consists of a series of questions at each age level, selected so that the average child of that age will be able to answer them successfully. For instance, it has been found through testing large samples of the population that the aver-

age three-year-old child can string four beads in two minutes; can name objects shown in a standard picture; can build a rough bridge from blocks; can copy a circle, and so forth. A nine-year-old child can detect absurdities in certain sentences; can reproduce designs when they are no longer in sight; can give rhymes for certain words; can make simple change; can repeat four digits reversed, and so forth. At the average adult level the subject can decipher a code and then write a message in a similar code; can give differences between abstract terms, as "laziness" and "idleness"; can give the meaning of certain proverbs; can solve standard puzzles, and so forth. If a subject answers questions totaling a score equal to that made by the average nine-year-old-child, he is said to have a mental age of nine years. If the mental age of a subject is divided by his chronological age the result is his intelligence quotient, or I.Q. As a matter of convenience this quotient is multiplied by 100 so as to avoid the necessity of dealing with decimals. If the subject's mental age and chronological age are the same, that is, if his mental development is the same as that of the average child of his chronological age, his I.Q. is 100. Those below average in intelligence, thus, have I.Q.'s less than 100, and those above average intelligence have I.Q.'s greater than 100.

Other Techniques. "Performance tests" have been developed for measuring the intelligence of illiterates. The subject is required to fit blocks into complicated patterns in a board, to imitate the experimenter in moving blocks through a complicated pattern, or to find missing items in a picture. Then, there is the whole development of group intelligence tests of which the prototype was the Alpha test devised for use in the army. On a printed blank the subject selects the opposites of a series of words, completes sequences of numbers like 2, 4, 6, 8, — , — , reads a complicated paragraph, and has to answer questions about it involving a certain degree of insight. With such tests it is possible to examine a large number of persons simultaneously. These tests play an important rôle in schools and colleges throughout the country.

Adult Intelligence. When such techniques are applied on an extensive scale, tremendous individual differences in intelligence are found. There is a wider gap between the idiot and the genius than between the idiot and the chimpanzee. It is generally conceded that the average adult, somewhere in the middle teens, ceases to become any more intelligent as he gets older. He be-

comes further educated, obtains more information, has a broader background for making decisions, but his innate capacity has reached its maximum. In the original standardization of the Binet tests by Terman this limit was set at sixteen years. For a number of years, however, this level has been considered too high, owing to the fact that its basis of standardization rested on tests given to high-school students. Because many children drop out of school before reaching high school, this group was undesirably selected. Moreover, during the war the Binet test was given in the army to a sample of 650 English-speaking men, and their average mental age turned out to be 13.4 years. Terman and Merrill have recently ¹ produced a revision of their scales based on a normal, unselected sampling of the adult population, and their data indicate that beyond the age of fourteen the average adult does not increase in mental development as he increases in chronological age. It is possible to measure differences in intelligence for people of higher chronological ages than fourteen by means of tests which have been standardized for the adult of superior mentality, but the fact remains that beyond the age of fourteen years the average adult does not undergo any great change in mental capacity until he reaches senility. This fact casts no undesirable reflection upon human intelligence, even though it be at variance with the uncritical opinion of the layman.

Normal Frequency Distribution. The notion of average intelligence implies statistically that many persons are above and below this level. If a series of measurements is taken of almost any psychological characteristic, such as intelligence, and a curve plotted with the different degrees of intelligence on the base line and the frequencies on the vertical axis, the result is something like that shown in Figure 1. This particular curve represents the intelligence scores of a large group of university students. For example, 40 of them score between 40 and 49 points on the test, whereas 77 score between 50 and 59 points. Theoretically the curve should approximate the heavy one in the figure, and be somewhat bell-shaped, the "normal frequency curve." This prevalence of mediocrity and the symmetrically decreasing frequencies toward the extremes characterize many other mental capacities besides intelligence. For the total population the mid-point of this curve

¹ Terman, Lewis, and Merrill, M. A. *Measuring Intelligence*. Boston, Houghton Mifflin Company, 1937.

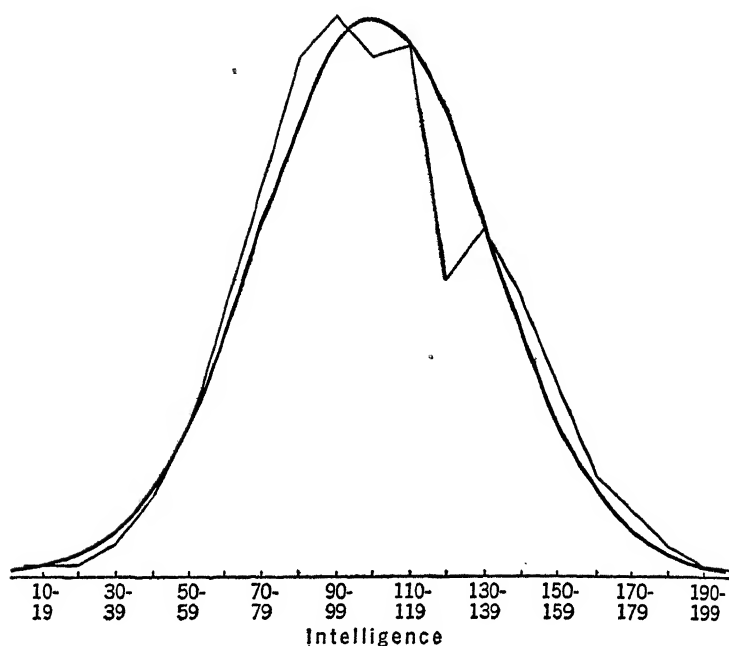


FIGURE I

would be in the vicinity of the mental age of fourteen, but appreciable numbers would be found above and below this middle range. It is important for the advertiser to know where on the curve his potential customers are. If he is attempting to sell to the entire population he may find it best to adapt himself to the majority, that is, to the middle portion of the curve. In some instances, the prospective customers may be located toward one end of the curve, so that a different approach is desirable. Consideration will now be given to ways in which advertising copy may be adapted to differences in intelligence.

Vocabulary. It is obviously impossible to present a matter to a child of eleven years in the same way as to one of sixteen. In explaining to him how sound goes over the telephone wire or is transmitted by radio it is necessary to use a simple approach and non-technical terminology. So the present-day advertising message for a person with a *mental* age of eleven must be somewhat different from the message designed for a person with a mental age

of fourteen. One of the most obvious differences is in the matter of vocabulary. Those of higher intelligence actually have picked up more information in the course of their everyday lives, because they have been more alert and the things that they have heard or observed have made a stronger impression upon them. As a result, they have usually acquired a much larger vocabulary than the less intelligent person. This point is corroborated by the fact that many of the intelligence tests incorporate vocabulary items. This does not mean that intelligence consists of vocabulary ability, but rather that, inasmuch as everyone in school or everyday life has been exposed to numerous words, a large vocabulary is one manifestation of a higher degree of alertness and intelligence.

Consequently, in writing advertisements for persons of higher intelligence it is feasible to use a more extensive vocabulary. This makes possible a greater flexibility in the copy, so that it may be more compelling or picturesque. Appropriate imagery or mental pictures may be aroused by a complex description of the product. A cooked ham may be described as "a gem of succulent tenderness and running juices, blanketed in a golden brown crust of crackling goodness." Or an automobile advertisement may embody the statement that "the vagabond days have come — this nimble car of fascinating ease scuds through the large and solemn twilight, making one golden hour outmeasure a long, drab year." A reader with a fair degree of intelligence would appreciate this sort of copy, and it might call up pleasant associations. On the other hand, the person lower in the intellectual scale would be nonplused and would become disgusted at its "highbrow" nature. He would pass on to something else, because people do not use a dictionary when they read advertising. It would be better in this case to talk about the taste of the ham, or about the fun that could be had with the automobile. At the other extreme, if the copy is stepped down too much and presented to a person of the higher type, his reaction is unsatisfactory. Although the limited vocabulary is necessary for the less intelligent individual, it seems rather flat for the more intelligent, much as a bedtime story does to an adult. It has been found that the average adult with his mental age of fourteen has a vocabulary of not over 9000 words. This figure comprises the total words that he can understand, while the number he uses or with which he is relatively familiar and which would make a favorable impression upon him may be considerably smaller.

Some stress is laid in advertising literature on this matter of bringing copy down to the intellectual level of the average person. It is permissible to use a more extensive vocabulary in magazines that have a restricted circulation in the higher group. On the other hand, in the more general magazines it may be better to write for the people on Main Street, and to do so in plain language which will have significance for them. An example of this is the history book which was the most widely read at a particular library. It developed that the author had given the manuscript to an eleven-year-old boy and asked him to mark all the words he did not understand.¹ The author changed all these words that the eleven-year-old had found difficult, with the result that the book was very popular. One manufacturer appointed a low-grade employee to read all the sales letters before they were mailed. As the incumbent proudly stated to a friend, "The boss says that if I can understand the letters anybody can." The moving pictures definitely write down to a fourteen-year-old level of intelligence, and there is some value in the suggestion that the advertiser might well do likewise, at least in the media that are going to reach the masses. However, in a recent issue of a magazine with a national circulation advertisements contain words like "ousts," "abrasive," "accumulation," "impart," "contour," "exemplifies," "tubular," "germicidal," "luminary," "emancipated," "aligned."

The gap between the vocabulary used in conversation and that in advertising was brought out in a brief study.² Fifty users of tooth paste, shaving cream, and automobiles described their favorite brands. They required on the average 12.6 words per sentence. On the other hand, fifty advertisements of those same commodities used on the average 20.5 words per sentence. Furthermore, the consumers employed only 3.9 sentences for the average description, and the advertiser 10.8. Although the advertiser was recounting certain further aspects of the product which might not occur to the purchaser, or at least would not occur to one who was not engaged in presenting selling points, the divergence between the two averages is disquieting. The inclusion of more selling points by the advertiser should have no effect, at least, on the length of the sentences.

The total number of words in the text of the advertisement has

¹ Updegraff, R. R. "How Old is the Reading Public?" *Advertising and Selling*, September 17, 1930, 15, 19-20.

² Hepner, H. W. *Psychology Applied to Problems of Business*, p. 539.

undergone changes in the course of the years. In 1921 the average for the *Saturday Evening Post* was 250 words.¹ In 1925 it was 241 — just about the same. By 1929 the figure had climbed to 281, but in 1931 it dropped back to 212. This may reflect the tendency mentioned above to get the advertising down to the level of the average reader.

Concepts. A second consideration, which is somewhat related to vocabulary, is the nature of the actual concepts or general ideas which are employed. Some are too complicated to be grasped by the unintelligent reader. Prunes, for example, "furnish nearly 1300 calories of energizing nutriment per pound. They constitute one of the best iron foods and supply two types of vitamins which everyone needs." Obviously the reader near the borderline of mental deficiency will not understand what calories and vitamins are, and is probably incapable of understanding such things even if the advertiser tries to teach him. Nevertheless, the advertiser must not forget that the consumers of prunes are predominantly of average or below average intelligence. A washing machine with a "six-sheet capacity" is more intelligible to the average reader than one that is specified in cubic inches or cubic centimeters. On occasion, a few technical words will create an impression that the product is superior. The writer recalls a childhood impression that a certain bicycle was superior because the electric headlight, according to the catalogue had "insulated" wires. However, there is a danger of over-emphasizing the technical phraseology when writing copy for the reader of average intelligence or less. On the other hand, the reader who subscribes to the higher type of periodical and is interested in popular discussions of scientific matters is naturally interested in, and capable of grasping, the more difficult concepts.

Reasoning. A third way in which copy may be adapted to the intelligence of the public is by taking into consideration differences in ability to reason. People differ markedly in their ability to follow an argument to its conclusion. If an advertisement states that the arch is the vulnerable part of the foot and explains how important it is to have the weight evenly distributed over that region by a certain type of shoe, the reasoning will be appreciated by certain persons, but it will be too complicated for others. In a survey of preferences for tooth paste in a Midwestern town, it was discovered that in the

¹ Giellerup, S. H., "What the Depression Years Have Done to the Ads," *Advertising and Selling*, August 30, 1934, 23, 25 ff.

more élite section, presumably inhabited by persons with higher intelligence, dentists' opinions and discussions about oral hygiene exercised about thirteen times as much influence as in an inferior section of the town. In the latter the consumers were more susceptible to such factors as the flavor of the tooth paste. Logical considerations were beyond their intellectual limits.

How to Judge the Intelligence of Prospects. In many instances it is necessary for the advertiser simply to adjust his program to the common denominator of the readers, perhaps to the lowest common denominator. It is not feasible to give an intelligence test to all those who are going to read a particular advertisement. But it is possible that certain media are read primarily by persons of a certain intellectual level, and consequently it is pertinent to investigate media from this standpoint.

An effort to determine indirectly the intellectual level of the readers of the medium was made in the following fashion.¹ Six parallel issues of two Chicago newspapers were taken and the per cent of polysyllabic words tabulated. The data appear in Table 12.

TABLE 12. VOCABULARY AND SENTENCE LENGTH IN NEWSPAPERS AND MAGAZINES *

	Words		Sentences		
	Over two Syllables	Over three Syllables	1-10 Words	Over ten Words	Over twenty Words
Paper A. . . .	13	5	17	83	49
Paper B. . . .	8	3	23	77	43
Magazine A.	14	4	23	77	45
Magazine B.	10	3	30	69	34

* Kitson.

The headings are self-explanatory. In one paper, for instance, 13 per cent of the words were over two syllables and 5 per cent over three syllables, whereas in the other newspaper the corresponding percentages were only eight and three. Similar data were compiled from two current magazines of national circulation. One of them had 14 per cent of its words over two syllables as compared with 10 per cent in the other magazine. So far as words of more than three syllables are concerned, the difference was slight. Another

¹ Kitson, H. D. *The Mind of the Buyer*, p. 60 ff. New York, Macmillan, 1921.

analysis was made of the length of the sentences. In paper A, 17 per cent of the sentences were between one and ten words in length as contrasted with 23 per cent in paper B.

With data of this sort a fundamental statistical question arises as to whether a difference such as that between the 17 and 23 per cent just mentioned is a "real" one or is merely accidental. To answer this question, it is necessary to compute the standard deviation of the difference and the critical ratio, which depend among other things on the number of cases involved.¹ The data in the report just quoted are not given in sufficient detail to make possible the exact computation of the critical ratio. It appears from the text, however, that over two thousand cases contributed to each of the percentages shown in Table 12. On this basis a difference of four or five per cent would be significant.

This difference in the length of words and sentences reflects some difference in the vocabulary of the readers of these media. The point was made earlier that vocabulary is one item in the Binet tests and hence an indirect evidence of intelligence. It is difficult to determine whether the medium adapts itself to what the readers like and are able to appreciate or whether the medium sets the pace and the readers select or reject it according to their own capacity. The fact remains that readers of certain magazines and newspapers do have a little higher intellectual status than the readers of others, and it is possible for the advertiser who is using these media to adapt himself accordingly. He can use a more extensive vocabulary, more picturesque phraseology, and more complicated concepts and processes of reasoning in his copy.

Indirect Estimates of Intelligence. Another indirect approach to the estimation of the reader's intelligence may be made if information is available as to his occupation or general social status. Some magazines make an effort to secure such information when readers subscribe or renew. The blank carries a space for the subscriber's occupation or items such as whether he has a telephone or a saddle horse. Sometimes an agency reaches a considerable sample of the population through an advertisement which carries some inducement to reply and secures information as to what the respondents read and what their occupations are. Organizations like the Audit Bureau of Circulations devote their efforts to securing as

¹ The technique is discussed at some length in the Appendix. It is basic to any interpretation of a difference between percentages or between averages. The reader is urged to familiarize himself with it at this point, as the same considerations will arise frequently in later chapters.

accurate information as possible about readers of various media and furnish such information to those subscribing to the bureau's service.

This interest in the prospect's occupation results from the fact that an appreciable relation is found between intelligence and occupation. Data bearing on this relation were secured in connection with the program of intelligence testing during the war. A large number of persons was tabulated whose occupations, for example, had been telegraph operator or clerical worker. The distribution and the average intelligence of each occupational group was computed, and a hierarchy was found, although there was considerable overlapping. The persons who had been in professional occupations in civil life appeared at the top of the hierarchy in intelligence; below them averaged the business and clerical workers; still farther down in the scale were the skilled workers and at the bottom the unskilled laborers. The assumption underlying these data is that a person in the long run tends to find his occupational level as far as intelligence is concerned. If he attempts something which is too far beyond him, he will be dropped and will sift down through the occupations until he comes to one where he is successful. On the other hand, if he begins too low in the scale he will become dissatisfied, try something else, and work his way up. These army data, then, indicate that occupation may be considered an indirect measure of intellectual capacity.¹ Consequently, those magazines that boast a high percentage of subscribers in the professional class are proper media for a more intellectual note in the advertising. In a large city it was found that the business class read the morning paper, and the laboring class the evening paper. The advertising implications are obvious.

In radio advertising it is more difficult to get a clue to the intelligence of the listeners. With reference to the program which is not directed to any particular group but is to make a universal appeal, it would probably be safe to generalize only to the extent of saying that the distribution of intelligence among the listeners to such a program is lower than that of the readers of, let us say, the average magazine. Presumably many persons listen to the radio who are so illiterate that they could not read printed copy with any degree of satisfaction. Some illiteracy is the result of lack of opportunity, but in many cases it reflects a lower degree of intelligence. The advertiser who is

¹ National Academy of Sciences, "Psychological Examining in the United States Army," 1921, *Memoirs*, 15, 890.

attempting to reach illiterate prospects must almost hark back to the sixteenth century or earlier, before the printing press, when comparatively few persons could read advertising copy. If one is attempting to write radio advertising for the entire group of listeners, it may be necessary to bring it down to an even lower level than is desirable with printed advertising. Writers of copy find, incidentally that their written copy frequently sounds quite unlike what they had intended. Some of them go so far as to use a dictaphone and then listen to themselves.

Thus there are available some indirect, but nevertheless useful, methods for getting information as to the intelligence of those who may perceive the advertisement. If such information is obtainable, then it is well to adapt the appeal with respect to the vocabulary, the concepts, or the type of reasoning employed in advertising copy. In this way, it is possible to avoid going over the heads of the unintelligent or making things too simple for readers of average or better intelligence.

INTEREST

It goes without saying that readers of advertising differ individually in their fundamental interests, and in their attitude toward various products. The whole question of interest becomes important because of the relation between interest and attention. Other things being equal, a person will pay greater attention to an object which interests him. If one likes baseball it requires no effort to concentrate on the game, and a "fisherman" becomes alert at the mention of trout. Consequently, an effective method of getting the advertisement into the focus of attention is to appeal to some interest. It may be noted, further, that when a person is interested in a thing and is paying attention to it, he will be more receptive to further suggestions dealing with it. Interest, as it were, sets the stage for the advertising appeal. It is extremely undesirable to catch the prospect while his attention is centered elsewhere and his interest quite at variance with the product under consideration. The problem that arises is how to ascertain the interests of the prospective readers of the advertisement.

Differences in Permanent Interests. Interests may be classified for purposes of discussion as relatively permanent or merely temporary. One sort of permanent interest is the individual's work

or vocation. If a person is well adjusted vocationally, he is normally interested in things pertaining to his work. A motor mechanic, for instance, would notice the grinding of the gears on a car which passed him; an architect would observe the perspective in a drawing; a tailor would notice the texture of wool in a suit; an advertising manager would be attracted by the competitor's headlines; and those whose milieu is domestic would be responsive to hats, recipes, or the cry of an infant.

Another class of permanent interests is avocational. Many of us have hobbies and can be aroused easily by anything pertaining to them. It does not take very much of a stimulus to get a golf enthusiast to talk about his personal experiences. If a person's hobby is radio, it is comparatively easy to arouse his attention by suggesting that you have heard some distant station.

A third way in which persons differ in permanent interests shades over into the general field of temperament. These more fixed emotional attitudes do give a permanent coloring to the individual's point of view. Mention was made in a previous connection of the melancholy and the choleric temperaments. Then there is the sedate type of woman, as contrasted with the younger, more frivolous variety with a hectic interest in pleasure and a lack of any very serious interests. Some persons are of a mildly paranoid type and are extremely credulous as to anything pertaining to personal efficiency. They worry about imaginary ailments, or seek short cuts to success. They are particularly susceptible to the "health, happiness, and prosperity" type of copy.

Locating Prospects with Given Interests. In utilizing these permanent interests, three considerations arise: (1) locating the group who have these interests; (2) employing the terminology peculiar to the particular group; (3) adapting the content or the appeal to the interests of these special prospects. So far as the first problem is concerned, it is often possible to find a medium which is read primarily by a particular vocational group. Trade magazines are circulated almost exclusively among persons interested in the trade and afford an appropriate medium for advertising tools of the trade. The professional fields have many special journals which are suitable media for advertisements of technical products, not merely because the prospects are interested, but also because practically all the prospects read those journals. Apparatus for blood counts could be run in a medical journal and chronoscopes in a psychological

publication. The only wise place to advertise the combination rubber boots and trousers worn by clergymen in the baptismal ceremony would be in a denominational magazine. Farmers constitute another vocational class and may be reached through rural magazines. Housewives with their special interests are accessible in the domestic magazines. Broadcasts in the middle of the forenoon are essentially for the attention of the housewife.

Identical principles apply to locating magazines appealing to persons with a specific avocational interest. The amateur radio operators have their own journal and with keen interest and often futile hope scan the advertisements for apparatus. Moving-picture magazines afford an appropriate medium for reaching those who are interested in the cinema. Physical culture magazines attract readers who are concerned with cosmetics or items pertaining to beauty or health.

Still other magazines are read primarily by groups which deviate temperamentally from the norm. The so-called "inspirational magazines" will provide the advertiser with readers who are interested in promoting their efficiency or curing their ailments. Although it is questionable to stimulate such persons to further temperamental deviations by advertising, this type of magazine illustrates the point under discussion.

Differentiation of interests is found within the pages of a single medium. Some readers are primarily concerned with the sporting section and read that alone, while others merely peruse the radio program. The desirability of inserting advertisements for sporting goods near the former and for radio accessories near the latter is so obvious that it needs no further comment. Mention should be made, however, of the fact that advertisements may be at a very great disadvantage, where the product advertised and the adjacent editorial matter appeal to actually incompatible interests. This point will be discussed more at length in connection with the location of the advertisement (Chapter XI), but it may be mentioned in passing that if the magazine reader is interested in a discussion of a new invention or even in a story, the adjacent advertisement of some trivial item like chewing gum not only fails to catch his attention but may even arouse an antagonistic attitude.

Terminology. A second possibility in adapting the advertisement to the reader is to employ special terminology. If the readers of a particular medium are known to belong to a special occupational or

technical group it is possible to talk to them in their own language. Some trade magazines have readers with a very specialized vocabulary — either technical or slang. The following incident illustrates the degree of specialization that may be found.

A telephone lineman had broken his leg, and, after it was set, the nurse was asking him how the accident had happened. His explanation was as follows: "I was stringing for the company and I had only one ground mole. He was up a big come-along and she was a heavy one. I was pulling on her and yelled to the mole to give the guy a wrap; instead he threw a sag into her and that broke my leg." The nurse replied, "I don't quite understand," and the lineman said, "Neither do I; he must have been crazy." Such an individual reading his trade journal would be favorably impressed by copy embodying such a vocabulary, although it would be entirely out of place in any other medium.

An example of this method is found in the cigarette advertisement in a financial magazine which was couched in such financial terminology as: "an *issue* for smokers; the first *preferred* smoke; *par excellence*; *yielding* 100 per cent satisfaction." A box on a theater program announces "the sizzling syncopators, Star Ham and Star Bacon." In a golf magazine one reads about being "always on the fairway of beauty" when using a certain brand of soap. Advertising in college papers makes an effort to use this same principle. "Cave men had whiskers. John W. Troglodyte hacked them off with a hunk of bronze and discovered that men had faces. Jones of the class of '77 used Schaeffer's Shaving Soap; Jones of the class of 1937 does likewise." The effort is sometimes overdone. The copy writer is too far removed from the college atmosphere and assumes that it has the same temperature and humidity that he finds portrayed in the moving pictures or in some of the best sellers. Students are not so collegiate as they are painted.

Content of the Appeal. A third way in which the advertisement may be adjusted to the permanent interests of the prospect lies in the actual content of the appeal. If a product is advertised in media going to a special group, it is possible to emphasize different aspects of the appeal in these different media. In selling portable typewriters, for example, the copy in medical journals emphasized a special keyboard which would facilitate the writing of prescriptions, whereas in college papers it stressed neatness in reports and notes. Occasionally copy is prepared and tested in the metropolitan centers

and then is released in a national campaign with an unfavorable effect in certain media. For example, a throat antiseptic featured a picture of a subway crowd and the contagious nature of colds and sore throats. Such copy in a rural magazine had no effect whatever because the readers had never been in a subway and were not moved by the fear of bacteria in a crowd. Another instance is that of the manufacturer of a face powder who attempted to adapt his copy to two different feminine types. In media which went to the younger, more frivolous type, the copy included the following: "How to choose the right powder and the right man. Too many face powders, like too many men, cause confusion. After a reasonable period of dalliance, pick your man and choose your face powder. Bourjois Manon Lescault will help you keep your man in bondage." Such an advertisement would arouse antagonism on the part of some of the more mature women. In their magazines they read, "When nature creates a beautiful complexion, she uses color so sparingly that those who seek to imitate her are baffled. Because its greatest charm is its naturalness, Bourjois Manon Lescault has been the choice for years." An advertisement for a blonde hair preparation in the *Pictorial Review* announced, "No lonely evenings for this blonde; her golden hair gets her more dates than any other girl in the crowd." The same picture in *The Woman's Home Companion* carried merely the statement, "No wonder he fell in love with her."

The advertising pages of media that are sold primarily to hypochondriacs or persons who are making an obsession of success contain copy like the following: "Eight great rules of success"; "Wake the giant within you"; "Many marvelous cures have been reported through silent treatment and you will get the vibration of the campaign and the power of thousands working for you and with you for your health and happiness."

TRANSITORY INTERESTS

Situation. The preceding discussion dealt with adaptation of the content of the appeal and its presentation to the permanent interests of the individual consumer. It is now well to consider more briefly the possibility of similar adaptation to transitory interests which are due either to the situation in which the consumer finds himself or to the particular advertising medium or portion of the medium which he is reading. A theater program, for example, is an opportune

place for advertising night clubs or restaurants to attend after the show. The reader's interest, at the moment, is in amusement and the advertisement fits into that pattern with no conflict of attitude. Concert programs appropriately carry announcements of forthcoming concerts or even advertisements for musical instruments. A large sticker bearing the word "rubbers," which one views through a rain-swept window as he is splashing along, fits into his momentary attitude. An organization which promoted apartments in down-town Manhattan had a large illuminated display at the west end of the Weehawken Ferry which read "If you lived at London Turrets you would be home now." That advertisement was the quintessence of timeliness.

It is possible, however, to overdo the matter of timeliness if a number of advertisers get the same idea simultaneously. This difficulty is especially noticeable at the Christmas season. In a sixteen-page section of a Christmas issue of a newspaper there were six Santa Claus heads, all of them similar. They lost whatever advantage they may have derived from the timeliness by the monotony of their repetition.

Editorial Policy. Still further transitory interests may be created by the editorial policy of a magazine. For instance, when *Good Housekeeping* was stressing the importance of testing food products it was stated of an item of apparel advertised in this magazine that it was "tested and proved by the greatest stars in the world." In *Vogue*, on the other hand, stress was laid, not on the testing, but rather on the regal beauty of some particular actress who wore the product.

Radio advertising should make an effort to adapt itself to the transitory interests of the consumer. Much of the time, listeners are relaxing and passively awaiting entertainment. Something may be said psychologically for a certain degree of informality on the part of the announcer and the general handling of the program. Again, their interests will vary with the day of the week and the time of the day. On Saturday evening, for example, the average American is relaxing from the heavier considerations of the week. If he is young, he is pleasure-bent, and if less active, wants some type of light amusement that will not require too much effort of attention. It is notable that one dance band leaped to prominence on a program given on Saturday evening, and an utterly nonsensical program also enjoyed great vogue for a while on Saturday evening. On Sunday,

the audience is set for the better types of music. Serious talks on current problems attract a considerable audience on Sunday. Again, in the early morning there is a market for the Pollyanna type of broadcast to cheer one up for the day and start him off to work with a smile.

ADVERTISING TO DIFFERENT AGES

General Differences. In addition to the general possibility of adapting copy to the intelligence or interest of the reader, it is worthwhile to consider any outstanding differences due to age or sex which the advertiser may utilize. Several age levels are usually discussed in connection with psychological changes. In infancy and childhood people react in accordance with their own drives and desires, with little social consciousness. At adolescence occurs a definite change, especially in the emotional sphere, with an increased interest in people, particularly in those of the opposite sex. When one settles down in middle age, his activities center more around home life and parenthood, and in the declining years there is a gradual narrowing of the field of activity.

Experiments. Psychological performance at these various ages has been approached experimentally. The problem of intelligence was discussed above. It will be recalled that people grow in this capacity till the early teens, whereupon further intellectual development, to all practical purposes, ceases. So far as the advertiser is concerned, it is not profitable to attempt adjustment of vocabulary or concepts to the age of the prospect within a range that stops short of senility. The differences among various occupational or social groups or among the readers of certain media, as described above, are much more significant for the advertiser's consideration.¹

The story is somewhat the same with reference to other capacities in addition to intelligence. Experimental work has shown, for example, that logical memory increases through childhood to the age of thirteen or fourteen and the curve then levels off, whereas memory span, that is, the number of impressions that can be grasped simultaneously, increases consistently until the age of eighteen. Studies of motor facility in tapping or manipulating apparatus show that this ability increases through childhood and then levels off with maturity.² Studies of certain psychological functions were ex-

¹ Cf. Pintner, R. *Intelligence Testing, Methods and Results*, p. 86. New York, Holt, 1931.

² Cf. Burt, H. E. *Employment Psychology*, p. 180. Boston, Houghton Mifflin Company, 1926.

tended into old age in a few instances.¹ According to these studies the speed of reacting for the average person rises to its maximum in the late teens and remains relatively constant till sometime between fifty and sixty years of age. Certain performances, such as turning a handle very rapidly or tapping, show a somewhat earlier decline. Miles points out, however, that there is a great deal of overlapping of the different age groups, and that from 10 to 25 per cent of those in later maturity and old age do as well in those tests as the average of the middle maturity groups. Here again, the advertiser will find no significant differences throughout the normal adult range.

Emotions. In the emotional sphere, however, differences that are of interest in the present connection appear more pronounced. Adolescents manifest a tendency to react more readily to emotional stimuli and live to a greater extent in an emotional world. Hero worship, "crushes," day-dreams, idealism, religious experiences, general excitability, and sometimes undue fears and worries characterize this period. The magnitude of these changes may have been over-emphasized by some writers, and some of the adolescent's difficulties are due to the fact that he hasn't been prepared for the changes that occur, so that they catch him unexpectedly. However, if one is concerned with influencing adolescents, those emotional features should not be ignored.

Interests. An important field for the advertiser's consideration is the change of interests with age. The most comprehensive study of this problem has been made by Strong.² His technique involves a type of questionnaire including something over four hundred items which the subject evaluates merely as to whether he likes or dislikes them. The items include different kinds of people, occupations, types of reading matter, forms of amusement, and so forth. Strong presents data for ages centering around twenty-five, thirty-five, forty-five, and fifty-five. He finds no great change in the number of items liked or disliked as one grows older. In other words, a person does not become negative and less interested in things in general. Some specific changes, however, are of significance in the present connection. For example, items suggesting physical skill and daring, such as "walking along the edge of a precipice" or "being an aviator" show the greatest change with advancing age. Another thing that is increasingly disliked in the later years is interference with estab-

¹ Miles, W. R. "Abilities of Older Men," *Personnel Journal*, 1933, 11, 352-357.

² Strong, E. K. *Change of Interest with Age*. Stanford University Press, 1931.

ADVERTISING TO DIFFERENT AGES

lished habits and customs. This is the well-known con of middle-age, but it was demonstrated quantitatively i vestigation. Interest in various types of amusement dec wise, except those which may be classed as cultural. Older persons are interested to a greater extent than younger in pursuits and amusements which they can follow alone and which are not dependent upon the social aspect.

Change of interest is marked at the earlier ages, but is not of much concern to the advertiser. Young boys, for instance, wish to become cowboys or G-men and gradually shift to aviation as a possible objective, whereas the earlier aspirations of girls to be moving-picture actresses change to desires to do stenography and office work. In a few advertising situations in which one is writing primarily to children some of these facts may be taken into account. Some children's radio programs deal with cowboys or with aviation.

Experiments on Buying Behavior. A few investigations have been made of buying behavior as related to interest at different ages. Surveys have been conducted, for example, to determine the age of heaviest buying for different commodities. Pianos are bought more frequently by persons over thirty, but phonograph records by those who are not yet thirty. In a study of preference for perfumes the younger women chose jasmine more frequently than did the older group. Not much data of this sort are available. One difficulty is in securing a sufficient number of subjects throughout the age range, and a further difficulty is in ascertaining their age because of mature reticence.

A study was described earlier which employed a special display in a store window and recorded the behavior or the eye movements of persons who passed. One tabulation involved the per cent of the passers-by who stopped to look at the display, and an effort was made in this case to estimate the age of the subjects. The experimenter was aware of the possibility of error in this estimate, particularly in view of the fact that feminine costume is no longer much of an index of age. He merely attempted to estimate to the nearest five-year interval. Fifty-two per cent of the ten-year-olds stopped to look at the window. The percentages at successive five-year intervals decreased rather consistently. The corresponding figures for the fifteen-year-old group were 45 per cent, for the twenty-year-old group, 34 per cent, and so forth, dropping to 27 per cent for the fifty-year group, 24 per cent for the fifty-five-year group, and 8

per cent for the sixty-year subjects. This gradual decrease in attention to a display with advancing age indicates that the advertiser who is attempting to reach the older constituency must devote greater effort to the utilization of devices for arresting attention.

Content of the Appeal. In the light of the psychological age differences just described, the advertiser may make some adjustments in the type of appeal he employs and in the way he phrases it. If the advertisement is directed primarily to adolescents, a short-circuit emotional type of appeal would be indicated. When a family buys a car, for instance, Father signs the check, while Mother smiles approval, but it is really the exuberance of youth that consummates the sale. An experienced salesman will often size up a situation in this way and concentrate his efforts on the youthful members of the group if it appears that their opinion is going to have much weight. In certain media the advertiser can count on a vast majority of the readers being at this age level. One of the boys' magazines aims its editorial policy deliberately at a hypothetical seventeen-year-old, and the advertiser might well do likewise. The following headlines from a boys' magazine would be obviously inappropriate for the adult: "Hi, Fellas — Northland Skis"; "Fun — learn Taxidermy"; "Let's Go — with a Daisy Air Rifle"; "Wear the Real Cowboy Stuff"; "Clear the track — for a Flexy Racer."

Copy may also be varied according to the interests of the different ages mentioned above. Since middle-aged people show a decreased interest in the hazardous, it would be inadvisable in advertising matter for such consumers to emphasize the thrill of a fast automobile, the possibilities of playing polo at a resort, or the opportunities for mountain climbing. The conservatism of the mature group would indicate the undesirability of suggesting innovations, such as gadgets for the car, too suddenly.

Certain interests are practically forced upon people by natural life situations. Parental interests do not play much of a rôle until one has children, and he does not begin to worry about the financial future and read advertisements dealing with investments, insurance, annuities, and financial security until he is considerably beyond adolescence. Insofar as the advertiser can secure information as to the age distribution of the readers of a particular medium he can make suitable adaptations in his advertisements. Some media are designed for, and read primarily by, youths or children.

Packaged cereals, for instance, are sometimes adjusted to the interests of the children. They include the pictures of Mother Hubbard used by the Singing Lady or enclose cut-out dolls. Juvenile radio programs likewise urge the listeners to eat the sponsored product in order to become strong like the hero of the program.

SEX DIFFERENCES

Another general classification of human beings which the advertiser may consider is sex. Here again, as in the case of age, the differences among individuals within a class are often greater than those between two classes. In studies on this problem¹ all indications are that in general abilities there are no significant differences between the sexes. The two sexes give evidence, however, of differences in interests and attitudes. Whether these differences are innate or due to environment is not a question for us here.

So far as the advertiser is concerned, if these interests exist he may utilize them. One study of this problem was based on the assumption that topics of spontaneous conversation would afford an index of interest.² If people were observed on numerous occasions to be talking about business, for example, it might be concluded that they had an interest in that sphere of activity. The experimenter frequented places where persons congregated and listened to conversations. He listened long enough in each instance merely to get the topic involved and to note the sex of the participants. The data were gathered in numerous places: in front of store windows, on the street, on the trolleys, outside factories at closing time, in academic classrooms, theaters, hotel lobbies, and railroad waiting rooms.

The principal results are summarized in Table 13, which is based on observations of about 200 conversations between two or more men and about 150 conversations between two or more women. The entries in the first two columns give the percentage of the cases in which the topic of conversation was that indicated at the left of the row. For instance, 49 per cent of the male conversations dealt with business and money as contrasted with 12 per cent of the women's conversations. The differences between percentages of

¹ Pintner, R. *Intelligence Testing, Methods and Results*, Chap. 23. New York, Holt, 1931.

Allen, C. M. "Recent Research on Sex Differences," *Psychological Bulletin*, 1935, 32, 343-349.

² Landis, M. H., and Burrut, H. E. "A Study of Conversations," *Journal of Comparative Psychology*, 1924, 4, 81-89.

TABLE 13. PERCENTAGE OF FREQUENCY OF TOPICS OF CONVERSATION *

	Men	Women	Difference + Standard Deviation
Business and money.....	49	12	8.2
People.....	16	37	4.5
Sports, amusements.....	15	11	1.1
Self	7	13	1.7

* Landis and Burt.

men and women discussing a topic were analyzed with reference to their statistical significance (cf. p. 463). The critical ratios appear in the last column. The usual interpretation is that if the ratio is at least three, the difference is of undoubted statistical significance and there is less than one chance in one hundred that its direction would be reversed in a repetition of the experiment. Obviously the difference in interests in business and money as revealed by the conversations is significant. The same thing is true with reference to interest in people. Here the women show a significantly greater frequency. With regard to sports and amusements and with reference to talking about one's self, the differences are statistically insignificant with the groups involved. The results of the experiment then indicate that insofar as the topics of spontaneous conversation may be taken as indices of interest, men are more concerned with business and money, whereas women are more concerned with people.

Abstract Appeals. In the study of abstract appeals, described in the preceding chapter, the results were tabulated for the sexes separately. It will be recalled that each appeal involved a brief paragraph and a code number with no mention of any particular commodity, and the subject simply ranked the appeals according to their estimated effectiveness in inducing him to purchase. Certain of the appeals were ranked considerably higher by the men than by the women. The leading ones are given here, and the figure following each indicates the difference in average rank in favor of the men: family affection 22, popular 20, royalty 14, sales 13, scientific 12, recommendation 12, size of plant 10. In other words men ranked family affection twenty-two places higher in the list of forty-four than women did. The appeals which the women ranked appreciably higher than did the men with similar differences in aver-

age rank were: health 19, stimulating 17, genuine 15, patriotism 14, hospitality 13, quality 13, value 10.¹ Obviously there is a considerable difference in the reaction of the sexes to this particular group of abstract appeals. The results should be qualified, however, by the fact that they were obtained from college students. For instance, the high ranking of family affection as an appeal for the male sex would seem a little unusual for the population at large. Few of this particular group of subjects had much contact with children in a parental way, so they would not be typical with regard to this appeal. In other respects, the results may be more typical of the reaction of consumers in general to these abstract appeals. The data suggest that the women were more influenced by the personal type of appeal, which is in conformity with the findings regarding topics of conversation.

In a similar study, Hollingworth noted civic pride and patriotism as predominantly feminine appeals, and authority and recommendation as masculine. He also found that the men disagreed most on personal appeals, whereas the women agreed more closely on such appeals. The results in this case, too, were based on college students. There is need for an extensive study of sex differences in reaction to appeals with a wider sampling of individuals of both sexes. Even though one sex may have a general interest pattern in the abstract, it is quite possible that this may vary in concrete situations. It has been suggested on the basis of interviews and qualitative observation that when a woman is buying for her family medicine chest or her kitchen she is interested in cold facts, but when she buys for herself she wants illusion and romance. For instance, her hat is one that "makes you feel ready and eager to face an admiring world" or her stockings are "illusory cobwebs."²

In the experiment in the store window (p. 23) the percentage of those who stopped was tabulated not only by age, but also by sex. The two sexes showed practically no difference except in the younger age groups. At an estimated age of fifteen, the girls seemed less interested in the window display than did the boys, but after that age there was no appreciable difference.

In connection with the problem of adjusting the appeal to the sex of the reader of the advertisement it is desirable to know the extent to which members of either sex purchase the commodity in

¹ Adams, H. F. *Advertising and Its Mental Laws*, p. 146. New York, Macmillan, 1921.

² Hill, E. A. "Cherchez La Femme," *Printers' Ink*, January 26, 1933, 162, 26-28.

question. If, for example, it is bought almost exclusively by women, even though it is a commodity which is used by men, the appeal should be one that would interest women. One result which stands out in a survey on this question is the fact that there are very few products which are bought exclusively by men. A questionnaire to twenty-five families indicated that men participate little in buying women's apparel, while women participate much more in the selection of men's clothes.¹ With reference to supplies for the home and food, the trend is still more pronounced. A recent study indicates that about eighty per cent of such purchases are made by women. The results for another market research study are shown in Table 14, which gives for a number of commodities the

TABLE 14. PURCHASING TENDENCIES OF THE SEXES *

	Decision by Men (per cent)	Men Participate (per cent)
Electric fans.....	55	21
Electric clocks.....	50	13
Washing machine.....	18	39
Electric toaster.....	25	
Gas and oil.....	90	

* Arnold.

percentage of cases in which the man actually made the decision as to the purchase of the product and in the last column the percentage of cases in which the man shared in the decision. He apparently plays a minor rôle in the purchase of toasters or washing machines but a major rôle in the other products listed. Gas and oil are the outstanding commodities in which it is the male who must be persuaded.²

It must be remembered, however, that many feminine purchases are subsequently appraised by men. Although it is important to advertise such products in a manner that will attract the woman initially, it is well to include some appeals to the man also in the advertisement. These appeals may operate in two ways. In the first place, the man may have read the advertisement and reacted favorably to the selling points, so that he will be satisfied with his wife's purchases. In the second place, the woman may remember the appeals even though they did not influence her, and will use them to justify her purchase at home. About the best the adver-

¹ Hollingworth, H. L. *Advertising and Selling*. New York, Appleton, 1920, p. 290.

² Arnold, C. "Who Buys What?" *Advertising and Selling*. July 19, 1934, 23, 27 ff.

tiser can do is to adjust his copy to the interests of that sex which does the initial purchasing, with, however, a modicum of incidental appeal which would reach the sex which will subsequently judge the purchase.

MISCELLANEOUS DIFFERENCES

There are a few other ways in which the advertiser may take account of individual differences. Prospects differ, for example, in general social status and in educational level. Some of these differences suggest the earlier discussion regarding intelligence. Since the uneducated person is in the same class with the unintelligent so far as vocabulary goes he would be unable to appreciate advertising in which complex expressions are used. Differences undoubtedly exist in the rural and the urban market. When reactions to appeals were secured from farmers and people in the city, statements that the object was cheap or that there was a souvenir with it were ranked higher by the farmer group (cf. p. 121). It has been suggested that in appealing to the rural market more stress should be laid upon bargains because farmers buy from the mail-order houses to such an extent that they are conditioned to bargains. There are also certain specialized groups which, owing to the differences in their general social environment, have different levels of interest. There is the hard-boiled, blasé type which occurs in the inferior districts of a city. They may not be inferior in intelligence, but they think in different terms and talk in a different language from other types of people. The quality of the calendars on their walls is somewhat indicative of their interests. The use of slang and rough terminology in the media going to that element would be more effective than in a high-class magazine. Some adjustment of copy and vocabulary to geographical differences and local conditions is desirable. The words "hydrant," "tap," and "faucet" are applied to the same object in different regions. Upon moving to a different part of the country one may commit a *faux pas* by asking at the store for "kerosene" rather than "coal-oil," by requesting the clerk to put some items in a "bag" rather than a "sack," by attempting to borrow a "pail" rather than a "bucket," and by sitting on the "piazzza" instead of the "porch." If a product is marketed throughout the entire country, it would be desirable to investigate colloquialisms in different regions and, when

advertising in local media, adjust the vocabulary accordingly. Unfortunately such adjustment is impossible in the large magazines that are circulated nationally.

Thus, it is desirable wherever possible to adapt the appeal and the copy to the individual prospect. The psychologist is keenly aware of individual differences, and many of his practical problems center around this point. Although to a large extent the advertiser has to aim at the common denominator, there may be cases in which, through some particular medium or section of a medium, he will know that he is reaching a particular group and can adjust himself accordingly. This is greatly to his advantage if it can be done.

SUMMARY

Individual differences in intelligence are of interest in adjusting the appeal of advertising to the various types of consumer. The frequency distribution of intelligence through the population is characterized by a prevalence of mediocrity, symmetrically decreasing toward each extreme. One possible adaptation of advertising to differences in intelligence lies in the matter of vocabulary. The extensive vocabulary of the more intelligent reader makes possible a greater flexibility in the copy directed to such a reader. On the other hand, simple phraseology must be prepared for the average person. In similar fashion, the concepts or the processes of reasoning involved in the copy may be adjusted to the intellectual capabilities of the reader. The question arises as to how the advertiser may ascertain the intelligence of his consumers in order to make such adjustments. One possibility is that an analysis may be made of the magazine or newspaper with reference to the length of words or sentences used in its editorial material. A medium which employs a more extensive vocabulary or sentence structure is read presumably by persons of higher average intelligence. Another indication is the occupations of the readers, for the highest average intelligence is found in the professional group and the lowest among unskilled laborers. The other occupations hold intermediate positions.

Another possible adaptation of copy to individual differences is in the field of interest. Persons differ in permanent interests due to their vocation, to their avocation, or even to their temperament. The advertiser's first problem is to locate the prospects with a par-

ticular interest pattern. The problem is often solved by advertising in a trade or professional journal or in one that is designed for persons with a particular avocation. Once the prospects have been located, the copy may be adjusted to their own language and the content of the appeal may stress points that interest them.

Similar possibilities exist in the adaptation of advertising to more transitory interests of the prospect. Some of these interests are due to the situation in which the person is at the moment; for example, at a theater reading a program. The radio listeners are more likely to be relaxed than is an audience in a concert hall, so that more informality is appropriate in advertising over the radio. The interests of the radio audience even vary with the day of the week or the time of day.

The possibility of adjusting advertising to the age of the prospect should not be overlooked. Experiments indicate that with intelligence and most mental capacities no consistent differences occur throughout the normal adult range. In the field of emotion, however, the adolescent shows an appreciable divergence from the adult and a short-circuit emotional appeal is appropriate. A decreasing interest in the hazardous with advancing maturity has been noted, and the older customer is inclined to be conservative. The advertiser should bear these facts in mind when stressing the adventure facilitated by, or the newness of, his product. Some interests are developed automatically by the situations that normally go with advancing age, such as interest in children and in future financial security.

Sex differences afford another possibility for appropriate variation of the advertising. No significant differences between the sexes are found in abilities, but studies reveal a greater feminine interest in people as contrasted with the masculine interest in business and money. The practice should also be governed by information as to the frequency with which the two sexes purchase the product. For this reason it appears more important usually to influence the woman, but it must be remembered that her purchases often are subsequently evaluated by the man.

Some miscellaneous differences may occasionally be worth the advertiser's attention. These include social or educational status, rural vs. urban domicile and even section of a large city. Adjustment of terminology to geographical regions may be advisable, especially with reference to colloquialisms.

CHAPTER IX

ATTENTION AND SIZE

GENERAL CONSIDERATIONS

THE discussion thus far has dealt with techniques for influencing the prospect favorably toward the product and with the adaptation of the appeal to the individual prospect. It is now necessary to consider the actual methods of presenting these appeals. However good the selling point may be intrinsically, it will not be of any advertising value unless it comes to the reader's attention and impresses his memory.

Difficulty of Attracting Attention. Attracting attention is a particularly difficult problem today. Everyone reads hastily, and there are so many things to read that each individual page secures only a minor bit of attention. There has been a tremendous increase in the number of magazines and newspapers through the years. At one time the average home received only a small newspaper two or three times a week and every word of it was read. Now the equivalent is supplied in one section of a daily paper. In the average home many magazines are lying around and the family is deluged with advertising material. This situation is conducive to a much more hasty reading of advertising than prevailed a generation ago, and it makes the problem of securing the reader's attention all the more acute. We are becoming a generation of scanners. Early advertisers found it relatively easy to secure the reader's attention. Their greatest difficulty was in inducing him to buy. Now both problems are difficult.

Range of Attention. A few characteristics of attention that have a particular bearing on advertising copy should be noted before taking up specific problems such as size. The range of attention is distinctly limited. A person can apprehend simultaneously only a comparatively small number of discrete impressions. In the usual experiment a tachistoscope (p. 14) is employed in which isolated numbers or letters may be exposed. Four digits are presented for a tenth of a second and the subject attempts to reproduce them immediately after the exposure. Then five numbers are presented, then six, and so forth, until the limit is reached. The average person

finds his limit at six or seven digits and is unable to perceive more in a single act of attention. The same principle applies to isolated letters, but if they are grouped into words the range is increased somewhat. A subject can grasp five or six words in a single act of attention, especially if they have some logical connection, such as forming a phrase or sentence, but there is still a distinct limit to the range of attention, and the implications of this limitation with reference to such problems as the length of the headline will be noted later.

Fluctuations of Attention. Another fundamental characteristic of attention is its fluctuating nature. If one attempts to concentrate continuously on the same stimulus he finds it difficult to do so. If a watch is held at such a distance that it can just barely be heard and the subject attends to the sound continuously it will disappear intermittently as the attention fluctuates. Again, if one looks at an ambiguous figure, such as a cube so drawn that it may be viewed either from the top or the bottom — that is, with all the lines drawn solid — he will observe that it changes from one aspect to the other as the attention shifts. This tendency creates a problem for the advertiser, who must keep the reader's attention upon his advertisement long enough so that it can make an adequate impression.

Accommodation of Attention. Another principle is known technically as "accommodation of attention." This term means that if a person is prepared for an event before it occurs he will receive a more complete and detailed impression of it. When measuring reaction time in the laboratory a preliminary warning "ready" is given a few seconds before the stimulus is presented. When the subject has his attention adjusted before the stimulus (light) flashes he can react more quickly by pressing his telegraph key. Similarly if a prospect's attention has this preliminary "set" before he encounters the advertisement he will get a more adequate impression of the copy.

Voluntary and Involuntary Attention. A distinction should be made between voluntary and involuntary attention. The former requires effort, as in studying an uninteresting lesson, whereas the latter is entirely effortless, as when one hears or observes an explosion or a football game. Voluntary attention plays a minor rôle in advertising. The housewife sometimes scans the department store advertisements for bargains, and a person who becomes interested

in a new car may seek a few of the current advertisements. Classified advertising is the only type that relies almost entirely on voluntary attention. A person who wishes to rent a room looks at the appropriate column and reads the items as a voluntary act, so that there is no problem of catching his attention. It is largely a matter of presenting the most important points regarding the product without any effort to provide attention-getting devices in the copy itself. If the number of similar classified advertisements is large it may be profitable to use bold-face type, or a larger point, or even a box with some white space in order to center attention on a particular advertisement. But generally speaking, in the classified advertisement one needs to make little effort to intrigue the attention of the reader.

Classified Advertising. The following case indicates how the attention value of a small classified advertisement may compare favorably with that of a larger display advertisement. Schools normally use small classified advertisements in the directory section of magazines comprising about seven agate lines — some twenty-seven to twenty-nine words. A survey of a considerable number of such advertisements revealed that they brought in inquiries at an average cost of \$6.72. One school tried as an experiment a full back page and secured inquiries at \$29.00 apiece. This same school received inquiries from their advertisement in the classified section at a cost of \$4.40. The corresponding costs of actual enrollments resulting from the two advertisements were respectively \$1350 and \$100 per enrollment. Obviously the small classified advertisement which depended on the voluntary attention of real prospects was better from a financial standpoint than the large display which was aimed at the involuntary attention of a promiscuous sampling of readers among whom there were only incidentally some actual prospects.¹

Classified advertising constitutes a minor part of the industry. In most cases the problem is to get the person's involuntary attention when he is engaged upon something else or concerned with other parts of his magazine or paper. Involuntary attention may sometimes be evoked because of the nature of the stimulus itself and in other cases because of some individual characteristic of the person, such as his interest. These points will be elaborated in subsequent chapters.

¹ Anon. "Stretching the Advertising Dollar," *Advertising and Selling*, August 4, 1932, 19, 15.

TECHNICAL CONSIDERATIONS

Quantitative Problem. It goes almost without saying that large advertising space is more effective than small space. No one disputes the fact that a full-page advertisement, other things being equal, catches attention more readily than a quarter- or eighth-page advertisement. This conclusion is good as far as it goes, but the advertiser naturally is not content to know merely that large space is better. He wants to know how much better it is. If he is running a half-page advertisement and contemplates increasing it to a full page at slightly less than twice the cost, he necessarily asks himself whether the additional size will produce a proportionate increase in attention value. This concrete problem as to the relation between size and attention must be answered in quantitative terms. The problem has other aspects too — for example, if the space is to be doubled it may comprise two half pages instead of one full page; further, those two half pages may be in the same magazine, or in different issues.

One Variable. In approaching these problems of size, it is important, as in numerous other problems, to isolate the factor that is under investigation. This point was made in the introductory discussion of methods and may be stressed again at this juncture. If one desires to know something about the relation between size and attention, it is necessary to set up an experimental situation which, as far as possible, deals only with size and attention. Conclusions regarding the value of size cannot be drawn when the larger advertisements occupy a better position in the medium or stand out without competition or include more color or pictures. It sometimes happens that investigations of this particular problem of the relation between size and attention are of little value because they fail to observe the above precaution.

Recognition vs. Recall Method. A considerable number of experiments have been concerned with this question of the value of advertisements of different size. The earlier technique consisted simply of having the subjects look through a magazine and then attempt to recall the advertisements. In later work more definite effort has been made to limit the study to the two variables under consideration, namely, size and attention. Then there is a further question as to the means employed to check upon the actual value of the advertisement. After the subject has looked through a

magazine or a dummy, two techniques are possible: he may be asked to recall as many advertisements as possible, or he may be provided with a number of advertisements and required to select those which he saw in the magazine. It has been suggested that some difference in the results is to be expected with these two types of approach. Some authorities feel that the recognition method comes a little closer to being an index of the sheer attention value of the advertisement, whereas the recall method is more a measure of memory value. This suggestion appears plausible in view of the fact that stimuli may catch one's attention sufficiently to leave some trace so that he can subsequently recognize them, but not leave a sufficient impression to facilitate outright recall on a later occasion. For example, we recognize a face as familiar although we cannot recall the name which went with it. Evidently the original situation caught the attention and produced some modification in the organism, but the recall technique would be inadequate to reveal this fact. In the same way, a person who has been slightly impressed by an advertisement which caught his attention might recognize it on a subsequent occasion although it had not made a sufficient impression so that he could recall it outright. To this extent the recognition method might be considered as a more adequate measure of attention. Both of these methods have been employed in some of the experiments which are to be discussed.

TYPICAL RESULTS

Magazine Experiments. An effort is made in Table 15 to summarize a number of the experiments dealing with the problem of size. Enough of such experiments are included to afford typical results. These experiments have been conducted with advertisements of all sizes, from double page down to the very small units, and the results have been analyzed at times in terms of fractions of a page and at times in terms of agate lines, so that it is difficult to make all studies strictly comparable. To obtain typical results, however, the analysis is confined to quarter-page, half-page, and full-page advertisements, and the pertinent data from these various studies are assembled into a single table. In every case the attention value of the quarter page is taken as 1.00, and from the available data the attention value of the half page or full page is computed as a ratio to the value of the quarter page. It is these ratios which appear in the table.

TABLE 15. ATTENTION AND SIZE

	Scott	Strong	Strong	Hotch-kiss	Franken	Adams	Starch	Starch
Quarter page...	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Half page.....	3.00	1.41	1.42	1.51	1.48*	1.78*	1.43	1.68
Full page.....	6.66	2.15	1.75	2.13	1.83*	2.05	4.76	3.14

* Size only approximately twice or four times smallest unit. See text.

Comment will now be made upon a number of experiments from which portions of the data are given in the table. One of the earliest of these was conducted by Scott. His subjects simply looked through the magazine at their own rate and subsequently were asked to recall the advertisements which they had seen in the magazine. The results appear in the first column of figures in the table. The original scores were in terms of the actual number of advertisements recalled or the percentage recalled, but these are simply transformed into ratios to the value of the quarter page as described above. It will be observed in this particular case that whereas the half page includes twice the area of the quarter page, it secures three times the attention; and while the full page is only four times the area of the quarter page, it gets almost seven times the attention. These results are typical of early experiments where little effort was made to control the material used and where, furthermore, the recall method was employed. On the basis of these earlier studies it was concluded that attention value increases more rapidly than size, or in other words, doubling the size more than doubles the attention value. It will become apparent presently that this conclusion has to be modified.

Several other studies of this sort have been made using actual advertising copy. One such experiment was conducted by Strong, who clipped advertisements and pasted them together in his own dummy magazine. In this way he could include material which was somewhat homogeneous and eliminate some of the extraneous variables which might have given the larger advertisements undue advantage in Scott's experiment. The subjects looked through this dummy with its quarter-page, half-page, and full-page advertisements under standard conditions, and then were tested by the recognition method. The results are presented in the second column of Table 15, in exactly the same manner as those of Scott. The half page is only 40 per cent better than the quarter, and the

full page only a little more than twice as good as the quarter page. According to these data then, attention lags behind size, to some extent.

Another approach by Strong consisted of canvassing a class to find members who had read a certain issue of the *Saturday Evening Post*. Those who had read the magazine were given a recognition test for advertising in that issue. The results appear in the third column. Here again it is to be noted that even under these conditions, where little effort was made to select the material, nevertheless the attention lags appreciably behind the size. In fact, the full-page is a little less than twice as effective as the quarter-page advertisement.

A similar study was made by Hotchkiss, who assigned members of his class a certain article in a magazine to read and then checked them for memory of advertising in that issue by the recognition method. The students had not been told to look at the advertisements, but many of them presumably did glance through the magazine. The results are given in the column headed "Hotchkiss," and correspond fairly closely with those in the two preceding columns of data obtained by Strong.

Another study was conducted by Franken on subjects who had read a certain issue of a magazine. The figures are not strictly comparable with the preceding, inasmuch as the advertisements were not classified specifically as quarter, half, or full page, but rather in terms of lines. From the data it was possible, however, to select three different sizes that were approximately in the ratio of 1, 2, and 4, and these are included by way of comparison. The results are not essentially different from the others.

Experiments Isolating Size. The studies mentioned so far involved the use of actual advertising copy. But this is not, after all, the most crucial type of procedure. As noted previously, the larger advertisement may get its superiority, not because of the size, but because of some other factors which enter into its construction or layout. One experiment was aimed specifically at this question of size, and effort was made to eliminate all other variables except size and attention.¹ The material for this experiment consisted merely of squares of colored paper of different sizes. They were colored only to facilitate their identification. Adams used papers one inch square, one and a half, two, and three inches square.

¹ Adams, H. F. *Advertising and Its Mental Laws*, p. 107. New York, Macmillan, 1921.

This gave areas in the ratio of 1, 2.25, 4, and 9. The material was presented in a tachistoscope (short exposure apparatus; cf. p. 14) with four squares on a single card, mounted in the four quadrants. Usually three of the papers were one inch square, and the fourth might be also one inch square, or it might be one of the larger sizes. After each card had been exposed the subject reported which patch of color he saw first and also enumerated all that he saw. He was able to identify the squares which he saw by naming the color. Precaution was taken to have every color — four colors were used — appear equally often in every position and also in every size. The three-inch square appeared in blue as often as in yellow, and likewise the large square appeared in the upper left-hand corner as often as in the upper right, and so on. In this way, by providing a considerable number of cards in which the color and the position were stacked systematically, it was possible to average out any influence of the color or position variables and to secure results which indicated the rather specific relation between size and attention. The best index of attention was the comparative frequency with which the various areas were seen first. Note was made for each card of the size of the square which the subject saw first on that card. If ten of these were one-inch squares and twenty of them were two-inch squares, the larger area might be considered twice as effective from the attention standpoint. Such figures were obtained for the average of all the subjects and then reduced to ratios to the one-inch area, in the fashion followed in the preceding portion of the table. These ratios are given in the column under "Adams" in Table 15. The starred figure in the column is based on an area of 2.25 square inches rather than 2.00, and hence is not strictly comparable with the other data in the table. The ratios here correspond pretty well with those in the preceding portion of the table. The area four times as large only gets about twice the attention, while the three-inch square (not included in the table) that is, nine times the area, had an attention ratio of 2.75. This type of result has led to the suggestion that the attention value is approximately proportional to the square root of the area. Thus, to get double the attention it is necessary to have about four times the area; to get three times the attention, about nine times as large an area is required. These data of Adams and some of the earlier data in the table bear out this interpretation. His experiments are crucial, as the variables, aside from attention and size, are largely eliminated.

One other point should be mentioned in connection with Adams's work, although it does not bear on the immediate problem. The results were also analyzed in terms of the attention value of a small square which appeared on the page with a larger one. The attention value of a one-inch square on a page with the other one-inch squares was computed; then the value of a one-inch square on a page that had an inch-and-a-half square competing with it, or that had a two-inch square competing with it, and so on. If the value of a one-inch square on a page with other inch squares is taken as unity, and the other figures reduced to ratios to this, we find that for the inch-and-a-half square the ratio is .74, for the two-inch square .65, and for the three-inch square .41. In other words, a small area competing with an area nine times as large is only 41 per cent as effective from the standpoint of attention as when it is competing only with other areas of its own magnitude. Again, a small area competing with another which is four times as large has only 65 per cent the attention value which it would have when in competition merely with others of its own size. In other words, a large area is effective at the expense of competing smaller areas. It is not that the larger area gets more attention and leaves the smaller unchanged, but that there is actually an interference. The implication of this result is that an advertiser using small space would find it more profitable to have his copy appear on a page with other small advertisements than mixed in with larger ones. If, for instance, he was using an eighth page, it would be preferable to place it with a number of other small advertisements rather than to have it appear on a page that was dominated by a half-page advertisement.

Anomalous Results. Considerable unanimity is obvious among the foregoing results, with the exception of the earlier work done by Scott with the recall method and with no selection of the advertisements used. One other set of experiments seems somewhat at variance with the general trend. Starch¹ had his subjects state what advertisements they could recall from a recent issue of a magazine that they had read, and a recognition test was also given in conventional fashion. The results were tabulated for different sizes, but only the quarter, half, and full pages will be mentioned in the present connection. With the recall method there was some discrepancy with the foregoing results. The corresponding ratios

¹ Starch, D. *Principles of Advertising*, p. 561. Chicago, Shaw, 1923.

for quarter, half, and full page in black and white are 1, .5, and 5.9. For some unaccountable reason there is in this particular case a dropping off in the value of the half-page advertisement as compared with the quarter page. The full page, however, is considerably more than four times as effective as the quarter page in getting attention. Results in the same experiment, using the recognition method, are given in next to the last column of Table 15, with the half page 43 per cent better than the quarter, and the full page somewhat over four times better. These results are a little at variance with the preceding.

Replies to Advertisements. The trend seems to be uniform, however, in indicating that attention value lags somewhat behind the size of the advertisement as the latter increases. The significance of this point will be considered presently. Meanwhile, it may be well to present a few other bits of data that bear on these same general problems. Advertisements for a watch were run in different sizes but with the content of the space enlarged proportionately with exactly the same copy and layout.¹ The returns were checked by means of inquiries for booklets. It developed that the inquiries increased proportionately to the square root of the area; that is, when the area was increased four times, about twice as many inquiries were received. The head of a concern marketing a twenty-five-cent facial soap is quoted to the effect that after their half-page advertisement was "blown up" to a full page, it pulled 50 per cent more inquiries. These results notably accord with the preceding discussion.

One other study of replies may be cited. Starch collected from advertisers a considerable number of advertisements and data as to the replies received.² On this particular question of size he had some 1,400,000 replies from 907 different advertisements in which the efforts devoted to inducing the prospect to fill out the coupon were about equal. It was impossible to control all the variables in the advertising copy, but with over a million inquiries and a wide sampling of advertisements, the average results may be of some significance. The figures were reduced to terms of replies per unit of circulation, and then the ratios computed between the replies for different sized advertisements. Such data for the quarter-page, half-page, and full-page advertisements are given in

¹ Hollingworth, H. L. *Advertising and Selling*, p. 66. New York, Appleton, 1920.

² Starch, D. *An Analysis of Over Three Million Inquiries*. Cambridge, Massachusetts, 1927, 43 pp.

the last column of Table 15. The half pages are approximately 68 per cent better than the quarter, and the full pages are somewhat over three times as good as the quarter. Attention still lags behind size, but not so much as in the preceding cases. Starch concludes that attention is almost proportional to size, although lagging a little; whereas most other workers in this field have concluded that attention is more nearly proportional to the square root of the size. In a later report by the same writer on a still larger number of inquiries the conclusion was corroborated in a general way, except that in newspaper advertising the attention lagged behind size considerably.

Eye Movements. Still other approaches have been made to the problem of the size of the advertisement. In one instance the technique of observing eye movements was employed. The subject sat at a table looking at a rack on which were displayed two advertisements. The experimenter looking through a one-way screen recorded the eye movements and then computed the proportion of the time that attention was directed to one or the other advertisement. For example, when a full-page and a half-page advertisement were presented it was possible to find the proportion of the time that was devoted to each. In this particular instance the first fixation went to the full-page advertisement 16 per cent more frequently than to the half page. During the first ten seconds the subject spent 23 per cent more time looking at the larger advertisement, and during a period of thirty seconds 32 per cent more time. The advertisements employed were as uniform as possible with reference to size of type, use of color, and pictures, so that the experiment affords some evidence that a full-page advertisement gets more attention than a half page, but it is obvious that it does not secure anything like twice the attention.

Another experiment employed essentially this same method but with the additional refinement of photographing the eye movements by a beam of light reflected from the cornea.¹ On one side of the field observed by the subject were five capital letters and on the other side five larger capital letters. During a ten-second interval approximately equal amounts of time were spent fixating the larger and the smaller letters. The subject necessarily knew that his eyes were being photographed, whereas in the other experiment he

¹ Hackman, R. B., and Guilford, J. P. "A Study of the Visual Fixation Method of Measuring Attention Value," *Journal of Applied Psychology*, 1936, 20, 44-59.

believed merely that some type of emotional reaction was being recorded. A subject who is not conscious of ocular factors is preferable for this type of experiment. The size factor was more completely isolated by the material used in the present study, and the effect on attention was less. This finding is in accord with the earlier one to the effect that large advertisements derive much of their value from variables other than size.

The Historical Method. This method contributes a little information to the problem. From the back files of the *Literary Digest* the percentage of the advertising pages that were devoted to full-page advertisements was computed for six-month periods, beginning with 1910. The results given in Table 16 are merely

TABLE 16. PERCENTAGE OF ADVERTISING PAGES DEVOTED TO FULL-PAGE ADVERTISING *

1910	10	1918	45	1926	60
1912	14	1920	68	1928	54
1914	16	1922	49	1930	52
1916	31	1924	52	1931	47

* Kitson *et al.*

excerpts at two-year intervals from the original data. The percentage of advertising pages that were devoted to full-page advertisements showed a steady increase in the decade from 1910 to 1920. This last year was evidently the peak, and thereafter the percentage dropped off to the vicinity of fifty, where it has remained subsequently with some fluctuation.¹ Interpreting the results in the usual fashion it appears that larger advertisements have proven valuable and have been used with increasing frequency through the years up to a certain point. There is a suggestion of a saturation point with respect to this particular variable such that if a much larger proportion of the advertisements are full-page they will lose in attention value. Like any attention device its effectiveness is somewhat relative. If all the advertisements were full-page no one would derive any superiority because of size.

¹ Kitson, H. D. "The Use of the Historical Method in Investigating Problems of Advertising," *Journal of Applied Psychology*, 1921, 5, 5-13. Also Gaudet, F. J., and Zients, B. D. "The History of Full Page Advertisements," *Journal of Applied Psychology*, 1932, 16, 512-514.

INTERPRETATION

It seems to be well established by these experiments and by the historical trend that large advertisements are effective in catching attention. The bulk of the experimental results, however, indicate that the attention value lags behind the size. The anomalous results that have been obtained may, to some extent, be due to the use of recall instead of recognition techniques in experiments with magazines or dummies, or to failure to isolate adequately the variables under investigation.

In the early studies in which the subjects looked through magazines and then were tested for the advertising therein, it is probable that the larger advertisements obtained their overwhelming superiority from some element other than size. In fact, it is possible to set up a better advertisement if more space is available in which to operate. Crowding of material is apt to occur in a small advertisement, especially if several members of the staff are involved in suggesting items for the copy. A picture has good attention value, as will be pointed out later, but in small space is often squeezed out. The larger advertisement likewise makes it possible to employ larger headlines. Some of the space can be left blank in order to give items in the advertisement additional value due to isolation. The full-page advertisement, furthermore, has no competition on the same page, whereas smaller displays must compete with other adjacent advertising. It was noted in some of Adams's experiments that the unfavorable effect of competing material on the same page bore a direct relation to the size of that competing material. Finally, it is probable that the larger advertisements, on the whole, are more carefully prepared. The advertiser putting more money into the page feels that a greater effort should be made to realize the full value of the expenditure and thus exercises greater care. Thus it is evident that numerous extraneous variables may have been involved in the early experiments in which advertisements were taken just as they occurred in the magazine. When the experiment is conducted with more carefully selected advertisements in a dummy or, better still, with abstract material, the tendency for attention to lag behind size is clear-cut. The more completely the size element is isolated, the more obvious is this lag. The conclusion is warranted that if one is going to increase the size of advertising space he should not merely "blow up" the copy and

trust that additional size alone will bring returns proportionate to the additional cost. He should strive to utilize that larger space more effectively and actually make a better advertisement.

SIZE OF PAGE

The preceding discussion tacitly assumed that all full pages are equivalent, regardless of format. A full page in the *Saturday Evening Post*, however, is considerably larger than a full page in the *Atlantic Monthly*. The question arises as to whether the attention value depends upon the absolute size of the page in square inches or whether it depends on the relative size as compared with other advertisements in that same medium. In one brief experiment on this problem,¹ thirteen duplicate advertisements were used in two full-page formats of distinctly different size, made into dummies. The subjects were allowed a standard amount of time to look through each dummy, and were tested by recall and recognition methods. The smaller advertisement contained about 73 square inches, and the larger 114. Comparatively little difference was found between the formats. In recall the figures for the small were 6.7, and for the large 6.9; in recognition they were 10.6 in each instance. Obviously the attention was not related to the absolute size. In another study a series of advertisements was reproduced in black and white by the photostat process in three different sizes — 50, 100, and 150 square inches.² The advertisements were so chosen that they could be reduced or enlarged with little change in their appearance. Three advertising dummies were made up accordingly. The subjects looked through the dummies in conventional fashion, were given a list of the commodities, and wrote down the trade name and a brief description of the picture. This procedure was a type of aided recall. Results for three subjects are summarized in Table 17. The successive rows give results for the three areas, and the three columns give the average scores for the three individual subjects. The left block of the table includes recall for pictures, and the right block recall for trade names. No very clear-cut tendency is apparent for the larger full-page advertisement to be superior to the smaller full-page advertisement.

¹ Cutler, Y. H. "The Effectiveness of Page Size in Magazine Advertising," *Journal of Applied Psychology*, 1930, 14, 465-469.

² Newhall, S. M., and Heim, M. H. "Memory Value of Absolute Size in Magazine Advertising," *Journal of Applied Psychology*, 1929, 13, 62-75.

TABLE 17. ABSOLUTE SIZE AND ATTENTION *

Square Inches	Pictures			Names		
50	21	34	50	21	32	46
100	24	30	56	28	36	45
150	27	35	43	22	33	44

* Newhall and Heim.

A detailed statistical analysis of the results, conducted to see whether the differences between any particular averages are significant (cf. p. 463), indicates that in very few instances is there any difference that could not be accounted for purely by accident. Thus the important factor is the size of the advertisement relative to the other advertisements in the medium, and not its absolute size.

SIZE AND REPETITION

General Problem. Thus far size has been discussed with reference to a single advertisement. A further question arises as to the value of size when combined with repetition. For example, a full page of space may be used as a single full page or as two half pages or as four quarter pages. It is conceivable that one arrangement may be superior to the others. A further problem deals with the comparative advantage of the smaller units distributed in the same issue and in successive issues.

The effect of repetition quite apart from other variables may be discussed more appropriately in connection with memory in a subsequent chapter. Repetition constitutes one of the outstanding methods of making a lasting memory impression. It does, however, have a certain effect on attention as well. For instance, someone speaks to us in a low tone when we are reading, and secures our attention on the third or fourth attempt even though he continues to speak with the same intensity. A mule may not attend to the first application of a club. Similarly many advertisements make little impression initially, but after one has been stimulated by them frequently in the magazines, the effect is summated and one begins to notice them. This summation likewise influences the memory. The present discussion will be confined to repetition as combined with the size of the advertisement; first, with the repetitions in the same issue and, second, with them in successive issues.

Münsterberg's Experiment. The earliest experiment on the problem of size and repetition in the same issue of a periodical was made by Münsterberg.¹ He employed what was essentially a dummy magazine in which full-page advertisements appeared only once, half-page advertisements appeared twice in different positions, quarter-page advertisements appeared four times, eighth-page advertisements eight times, and twelfth-page advertisements twelve times in the course of the dummy. The magazine was so arranged that every commodity advertised had the same total amount of space devoted to it in the series, but this space was distributed differently. The subjects looked through the pages at a standard rate and then recalled as many of the advertisements as they could. A scoring procedure gave different weight to the name of the commodity and the name of the firm, but interest in the present connection is only in the comparative value of the absolute scores for the different arrangements. Only four of the arrangements will be considered, because these are comparable with another study to be discussed in this connection. The results are summarized in the second column of Table 18. The average score for the full-page advertisements appearing once is taken as unity, and scores for

TABLE 18. SIZE AND REPETITION

	Münsterberg	Adams	Presentations	Duplicates	Variations
1 × 1	1.00	1.00	1	1.00	1.00
½ × 2	.91	.91	2	1.49	2.62
¼ × 4	1.49	.87	4	2.60	4.05
⅛ × 8	1.33	1.01			

the other arrangements taken as a ratio to this score for the single full page. It is to be noted that the half-page advertisement appearing twice was 91 per cent as effective as the full-page appearing once, but, the quarter-page four times was 49 per cent better than the single full-page, and the eighth-page eight times was also considerably better than the full-page. This preliminary result may be of considerable interest in showing that while larger space has an obvious advantage over smaller space, nevertheless, something may be said for the scheme of repeating the smaller unit.

¹ Münsterberg, H. *Psychology and Industrial Efficiency*, Chap. 20. Boston, Houghton Mifflin Company, 1913.

Adams's Experiment. A similar experiment was conducted by Adams.² The subjects looked through the dummy with a single time limit for the whole magazine. Credits were awarded for different items of score in a fashion somewhat similar to Münsterberg's. Combining the data for the average group memory for the advertisements, the results on the main point under discussion are summarized in the table under the heading "Adams." These results do not particularly corroborate those of Münsterberg, except in indicating that there may be an arrangement of smaller space repeated which at least is not inferior to the full page appearing once. In Adams's study the half and quarter pages presented with a frequency inversely proportional to their size were somewhat inferior to the single full page, but the eighth page appearing eight times was as effective as the whole page appearing once. The problem appears to be still open, and the conclusion is unwarranted that simply running a full-page advertisement is the best way to spend that amount of space in the medium involved. There is a possibility that with repetition of the smaller sizes, while the individual attention of each one is not so great, nevertheless the cumulative effect of repetition may break through and in the long run be equally, or even more, effective than the single presentation of the large advertisement. This principle is utilized occasionally in magazines or newspapers where a small advertisement is repeated on different pages of the same issue. Little evidence is available regarding returns from different arrangements of this sort, but the following pertinent statement was made by the owner of a concern which advertised toilet articles and cosmetics: "If the substance of an advertisement remains essentially the same, a half page or a third of a page published two or three times will produce a greater response than a full-page presentation of the same fundamental copy story, assuming, of course, that the half-page unit or third-page unit allows the illustrations and headlines and copy a reasonably effective physical treatment."

The above discussion does not apply to the use of small space repeated, with a continuous message broken up so that only a part of the complete message appears in any one advertisement. The latter practice doubtless took its cue from the roadside jingle which presented a message on a succession of signs which the traveler read seriatim. Burma-Shave, according to one of its officials,

² Adams, H. F. *Advertising and Its Mental Laws*, p. 166.

found this device very successful at the roadside. When they tried similar jingles with the parts scattered through four pages of a magazine the device did not work. The difference doubtless lies in the fact that the autoist would probably see all the signs if he saw one, while the magazine reader might see one and not the others. A portion of a sentence in isolation would carry little meaning.

Duplicates and Variations. There is still another aspect of the problem which should be mentioned. When repeating the smaller advertisements in the same issue, it is possible to repeat the same message each time or to vary it somewhat. Some evidence in favor of the latter procedure was furnished by an experiment¹ in which dummy magazines were used, containing advertisements of three sizes — quarter, half, and full page — repeated once, twice, or four times in the same issue of the magazine. The advertisements were so arranged that in some cases the repetitions were exact duplicates, and in other cases there was some variation. The varied advertisements were of the same commodity and included some of the same selling points, but embodied perceptible differences in layout. A notion of the general results may be obtained by lumping together all the sizes and considering merely the matter of repetition. The attention values of all the advertisements that appeared twice or four times were reduced to ratios to the effectiveness of the single presentation. The data were separated, however, on the basis of whether the repetitions were duplicates or variations. These results appear in the last columns of Table 18. With the duplicates the four appearances are only 2.6 times as effective as a single one, but with varied content the four presentations are about four times as good as the single. In other words, the repetition is appreciably more effective if the content is varied somewhat. Presumably the variation introduced a certain amount of novelty and secured more attention. Furthermore, if one bit of copy did not appeal to a given reader the slightly varied advertisement on a later page might embody something that was better adapted to him. There would also be the cumulative effect of his having seen that same commodity advertised earlier in the magazine, although he had not observed it very carefully. Thus there are possibilities in the use of small but somewhat varied advertisements of the product on different pages of the same issue of a publication.

¹ Adams, H. F. *Advertising and Its Mental Laws*, p. 226.

Attention and Repetition. It might be well, in passing, to call attention to the fact that repetition of duplicates as such does not produce an increase in attention which is directly proportional to the number of repetitions. In an earlier connection it was noted that as size increases attention lags behind. In the present instance, as the number of presentations is increased the attention also lags. An indication of the trend may be obtained in next to the last column of Table 18 under the heading "Duplicates." Two presentations are only about 50 per cent better than one, while four presentations have about 2.6 the attention value of a single one. In another study by Strong the corresponding ratios were 1.24 and 1.61. The principle holds regardless of whether the advertisement is a full, half or quarter page. Considering, for example, the attention value of two presentations versus one, the ratios when only quarter pages are involved is 1.22; when it is a question of half pages, 1.26; and for full pages 1.24. Similar ratios for four presentations versus one for the three sizes just mentioned are 1.73, 1.53, and 1.58. Attention thus lags behind the frequency of presentation, and does so about equally for the different sizes.

Climactic Order in Sizes. A problem arises in connection with the possibility of variations in the size of the advertisements with successive repetition. For example, a quarter-page advertisement might be followed later in the same issue by a half page devoted to the same product and still later by a full page. Conversely, the first advertisement for the product might be a full page and the succeeding ones in the issue occupy smaller space. It is not profitable to consider all the possible combinations, but to discuss only the general trend for the climax versus the anticlimax order. The former connotes beginning with small advertisements and working up to larger ones for the same product in the same issue, whereas the anticlimax order involves beginning with the large one and following it with smaller. In a study devoted to this particular problem² dummies were prepared in which each advertisement appeared four times, with varied content, in such combinations as three full pages and a half page, a half and three fulls, two halves and two fulls, and so forth, and the results were tabulated according to the climax or the anticlimax order. The net result was that the anticlimactic order was about 11 per cent superior to the cli-

² Adams, H. F. "The Effect of Climax and Anti-Climax Order of Presentation on Memory," *Journal of Applied Psychology*, 1920, 4, 330-338.

mactic. This result is plausible enough. Starting with the larger space presumably makes a good initial bid for attention, and this is followed by additional reminders in the smaller sizes. If the series starts with the smaller advertisements the reader may overlook some of the earlier ones and pay little or no attention, until either he has the cumulative effect of several small notices or the larger one appears.

Variation of sizes in the successive repetitions is not a frequent practice. One series may be noted, however, in which the anticlimactic order was employed. A full-page advertisement of a new automobile appeared early in the magazine. Several smaller advertisements in later pages referred back to the initial one. These included: picture of a man jumping into a taxicab, with a headline: "Drive me to page three"; an oculist telling a patient to "Read this" while the test card mentions the automobile on page three; a waiter handing the customer a magazine and telling him, "Don't forget the news of the new automobile on page three." This series embodied the anticlimax principle above mentioned, and in addition referred the reader back to the full-page advertisement which told the main part of the story.

ADVERTISING IN SUCCESSIVE ISSUES

The discussion thus far has dealt with repetition of advertisements in the same issue of a magazine, where the reader sees them within a few minutes of one another. Evidence thus far seems to favor the repetition of smaller sizes. If, however, it is a question of using a small space in successive issues of a magazine the story is somewhat different. An experiment on this aspect of the problem is reported by Strong.¹ It employed the ubiquitous advertising dummies with full-page, quarter-page, and half-page advertisements and presented them one, two, or four times. The subjects examined four dummies a month apart, and in each instance were checked by the usual recall methods for the advertisements that they had seen a month previously. For example, they were shown certain advertisements in January; then in February they were tested for the January advertisements and were shown the second series of February advertisements. By carefully arranging the dummies

¹ Strong, E. K. "The Effect of Size of Advertisements and Frequency of Their Presentation." *Psychological Review*, 1914, 21, 136-152.

and making a selective tabulation of the results, it was possible to analyze the effects of size and repetition in these successive "issues" of the magazine. The results are summarized in Table 19. The attention value of the quarter-page advertisement appearing once is taken as unity, and the score for each of the other

TABLE 19. SIZE AND REPETITION IN DIFFERENT ISSUES *

Appearance	Quarter Page	Half Page	Full Page
1	1.00	1.45	2.20
2	1.22	1.83	2.73
4	1.73	2.22	3.47

* Strong.

arrangements taken as a ratio to that for the single quarter-page advertisement. Reading down the columns shows the effect for two or four presentations, and reading across shows the effect for the different sizes. It is to be noted that, as usual, attention lags behind size and behind frequency. The main problem in the present connection, however, is the comparative effectiveness of a single page of advertising, in one issue, or divided between two successive issues, or among four successive issues. Such a comparison is possible by reading along the diagonal in the table, beginning at the upper right corner. The full-page advertisement presented once has a value of 2.20, whereas the half-page advertisement presented twice scores only 1.83, and the quarter-page advertisement four times 1.73. Similarly a half-page advertisement presented once has a value of 1.45, while the same area divided into two quarter pages a month apart has a score of only 1.22. Two full-page advertisements have a value of 2.73 while four half pages, which constitute the same total area, have a value of only 2.22. This is a distinctly different trend from that which was found in the earlier consideration of repetitions in the same issue of the magazine. The result seems entirely plausible. When the presentations are in close succession, as they would be in a single issue of a magazine, the effect of one presentation carries over very definitely to the next. If, however, there is a considerable period of time between the presentations, the effect of the first advertisement becomes negligible by the time the second one comes along, and it is necessary to begin all over again. This interpretation is in accord with ordinary principles of memory which are brought out in other

types of psychological experiments. Reading certain material or performing certain acts repeatedly without too much of an interval between the performances seems quite effective from the standpoint of retention, but if a month elapses between successive practice periods, learning is difficult. Consequently, the favorable comments made above regarding the repetition of smaller sizes (particularly with the introduction of variation in the layout) do not hold when the repetitions are to be separated by a considerable interval of time, as they might be in the case of a monthly magazine.

SIZE OF TYPE

Experiments. While dealing with the size of advertisements and their effect on attention, it is appropriate to mention the size of the type in relation to attention value. Results indicate, as might be expected, that up to a certain point increase in type size increases the attention evoked. In some of the earlier experiments in which a card was exposed with twenty-five words on it, five of which were in type approximately twice as large as that used in the others, it developed that about 54 per cent of the larger words were noticed, and only about 11 per cent of those set in smaller type. In a study with magazines where the display type was 5.77 mm. in height, the advertisements were recalled on the average 6 times, whereas when the display type was 8.10 mm. in height, the average recall was 11. In another case with words on cards (in which the words were set up in four different sizes, presented for a standard time, and then checked for recall) the average number of words recalled for 2, 4, 5, and 6 mm. type was 10, 18, 28, and 44.¹ In another instance, cards with pairs of letters of various sizes were hung in a classroom without comment. Toward the end of the hour they were removed, and the class was required to write the letters that they recalled. There was a very definite tendency toward greater recall of the larger letters, with the exception of some of the extremely small ones, which had evidently caused the individual to stop deliberately and make an effort to see what they were.

Historical Method. It is clear that larger type gets more attention. The question arises as to whether there is any practical limit to this principle. In newspapers and magazines there is an obvious

¹ Starch, D. *Principles of Advertising*, p. 620.

limit, because if the type is too large there is insufficient room to say anything. The extreme case would be such large typography that a single letter occupied the entire page. Even a size of type which permitted one word across the page would be of doubtful value because it usually takes several words to present a headline that tells anything. The only indications as to the effective limit of size of type are obtained by the historical method. Tabulation of the size of display headlines in advertisements, going back over a considerable period, shows a gradual increase up to a certain point, and thereafter the size remains fairly stationary. In *Scribner's* and *Harper's* in 1870 the display type in the headline was on the average about 24 points.¹ In 1880 it had increased a trifle to 26 points; by 1890 it was about 30 points; in 1900 it was about forty points; and in 1910 about 48 points. A survey of type sizes in headlines since that time has shown variation, but generally speaking, there has been no very appreciable increase beyond the 48-point type. It is probable that when the size gets much beyond 48 points, while the attention value may be very good, there is inadequate room for the message. This conclusion would apply particularly to full-page advertising. With still smaller space, probably type as large as 48-point would be so out of proportion to the advertisement that the whole thing would be unattractive, and there would be insufficient space left for the rest of the message. General statements are often made to the effect that the height of type in the headlines should be one tenth to one twentieth the height of the entire advertisement. Such statements are not borne out by actual practice. Measurements of headlines in one-column, two-column, and full-page advertisements in the *Saturday Evening Post* and the *American Magazine* revealed that the height of the headlines averaged around three per cent of the height of the advertisement.²

This is not the place to go into detail concerning the actual legibility of type sizes. Although 48-point type doubtless is very satisfactory from the attention-getting standpoint, if the entire advertisement were set in that size of type, it might not be read so rapidly as it would be in some smaller size.

One study of legibility, as indicated by speed of reading, showed

¹ The conventional point system in typography figures 72 points to an inch. For example, 6-point type would run 12 lines of printed matter to the inch, provided no additional spacing were used between the lines. Similarly, 24-point type would run 3 lines to the inch, provided no extra lead were placed between the lines.

² Kitson, H. D., and Morgan, H. K. "Size of Headline and Size of Advertisement," *Journal of Applied Psychology*, 1924, 8, 446-449.

that with lines 80 mm. in length 10-point type was the most satisfactory.¹

Problems of legibility will be discussed later. Other variables are involved in the present problem, such as the length of line. The preceding discussion of size of type had to do with attention value in display type rather than type in the text of the advertisement. In a headline, for example, the advertiser is not concerned with having the prospect read any great amount of consecutive material but merely with attracting his attention to a few outstanding words. If the advertisement comprises a considerable amount of text, other problems such as type face and length of line become of considerable importance. These will be discussed in Chapter XVII.

SUMMARY

The problem of catching attention is more difficult today in view of the larger and more numerous advertising media and the hasty habits of reading which have developed. Except in the case of the classified columns, the advertiser is nearly always concerned with arousing the involuntary attention of the reader.

Large space obviously secures more attention than small, but the advertiser is concerned with the quantitative relation between size and attention. In experiments on this problem it is especially important to control the extraneous variables such as color and pictures. Numerous experiments have been conducted with magazines, dummy magazines, or abstract material. The more completely the size variable is isolated, the more definite are the indications that attention value lags behind as size increases. In fact, it is very nearly proportional to the square root of the area. A study of eye movements when the subject is confronted with advertisements corroborates this conclusion to a slight degree. The historical method reveals an increase in the use of large advertisements and thus indicates that large space is profitable. The apparent contradiction between these results is understandable. Attention value actually lags behind size in somewhat the relation of the square root, but in the larger space it is possible to make a better layout, so that the larger advertisements as they actually occur are better advertisements and derive their superiority from factors other than size.

¹ Paterson, D. G., and Tinker, M. A. "Studies of Typographical Factors Influencing Speed of Reading. II, Size of Type," *Journal of Applied Psychology*, 1929, 13, 120-130.

It is the comparative size of advertisements in a given format rather than the absolute size of the format that is of importance.

When increasing the magnitude of advertising it is possible to enlarge the single advertisement or to put the increase into several smaller units. A typical problem would be the comparative advantage of a single full page and four quarter pages in the same issue of a magazine. When the smaller advertisements are all duplicates, conditions may be found in which the small units are at least as effective from the attention standpoint as the single large advertisement. The repetition is found to be appreciably more effective if the small advertisements are varied somewhat instead of being duplicates. Still further variation of the practice may be introduced by having the repetitions comprise mixed sizes. In this case it develops that an anticlimactic order is superior; that is, beginning with a large advertisement followed by smaller ones later in the magazine.

The above results were based on repetitions in the same issue of a magazine so that the subject would see the different units in rather quick succession. If it is a question of repeating the small units in successive issues, the story is entirely different. An investigation with the issues a month apart indicated that the single full page was distinctly superior to two half pages a month apart.

The size of type in the advertisement constitutes another problem for investigation. Larger type, so far as experiments go, has superior attention value. There is, however, a practical limit because if the type gets too large it is impossible to present a message in the space available. Historically, display type in magazine advertising has increased through the years up to about 48-point and has become stabilized at that size. The attention value of large type should not be confused with its legibility. Indications are that with lines of moderate length (80 mm.), 10-point type can be read the most expeditiously.

CHAPTER X

INTENSITY, MOTION, CONTRAST, AND ISOLATION

INTENSITY

IN THE preceding chapter we considered in some detail the effect of the size of the advertisement upon its attention value. Briefer consideration will now be given to a number of other factors which contribute to attention in much the same mechanical fashion. The point was made earlier that some characteristics of the advertisement operate in direct fashion upon the sense organs and derive attention value from the mere mechanical properties of the stimulus, whereas others arouse associations, create interest, and secure attention because of the meaning of the object. In the present chapter we are concerned with several other mechanical factors. The first of these is the intensity of the stimulus.

Visual. The most obvious visual element is the actual amount of illumination, whether it be provided by an electric sign, an illuminated poster board, or simply by a number of lamps in front of one's place of business. The general increase of attention with intensity of illumination needs little demonstration. It is interesting, however, to note a few instances in which an effort has been made to measure the relation between intensity and attention. Experiments were conducted with different degrees of illumination in a store window, and an observer was posted to count the proportion of the people passing the store who stopped to look into the window. The results are summarized briefly in Table 20. The first column gives

TABLE 20. PERCENTAGE OF PEDESTRIANS STOPPING TO VIEW WINDOW DISPLAY

Foot Candles	Percentage
15	10
30	12
50	15
65	17
85	19
100	21

the amount of illumination in foot candles, and the second column, the corresponding percentages of the passers-by who actually stopped to view the window. The added illumination produced an obvious increase in the attention value of the window display, although the two factors were not in direct proportion. Doubling the illumination, for instance, from fifteen to thirty foot candles merely increased the percentage of those stopping from 10 to 12. Attention lagged behind intensity, just as it lagged behind size in the experiments cited in the preceding chapter. The writer knows of a church that increased the attendance at its evening service about 50 per cent by the simple expedient of putting a few bright lights in front of the church building. Persons out walking on a pleasant evening with no particular destination would be attracted by the lights and come into the service. Figures similar to the above are not available regarding the effectiveness of illuminated outdoor displays, but there is every reason to suspect that they are quite valuable from the standpoint of commanding attention.

Auditory. The outstanding example of intensity in the auditory field is the "voice from the sky" — the airplane with the powerful speech amplifier which can broadcast music or text so that the people in a large section of the town can hear it. One campaign in the South, using this device, increased sales of cigarettes in that region an average of 40 per cent. Another arrangement of this sort consists of an amplifier on a truck by means of which music or announcements are broadcast as the truck travels about the city. Usually music is played to attract attention to the truck and to the printed display on the side of it. Since the sound must compete with intermittent city noises, verbal announcements are somewhat uncertain and the printed display safer. The loud music serves its purpose in drawing attention to the truck.

This device suggests the medieval crier as an advertising medium, with microphones and vacuum tubes replacing the harp or flute. In the modern amplifier the quality of the music often leaves much to be desired, and although the bystander cannot ignore it, he fails to be favorably impressed by the whole unit. Persons who are aesthetically sensitive dislike the music, and that attitude spreads to the announcements on the side of the truck or to the verbal statements which are interspersed. Other listeners are annoyed by the fact that this unnecessary sound is added to the already high noise level of the city.

Psychophysical Law. The question of competing noises leads to a consideration of a fundamental law regarding perception of differences in intensity. If a sense organ is already being stimulated it requires a certain minimal increase of stimulation before that increase will be noticed. If a large orchestra is playing, the addition of one violin will not be perceptible. If coffee already contains six lumps of sugar an additional one will not make a noticeable increase in sweetness. A star is imperceptible in the daytime although it is adding the same absolute amount of brightness to the sky that it does at night. This principle has been investigated in detail in psychological laboratories. It is found that the increase in stimulation necessary to be discriminable bears a constant ratio to the existing stimulation. This ratio is consistently different for the various sense departments. In vision it is 1 per cent, in noise it is 33 per cent; in lifting weights 2.5 per cent, with corresponding figures for the other sense modalities. The advertiser is concerned merely with the first two. The results cited earlier regarding attention and the illumination of a window display would have to be tempered according to the illumination of the adjoining store windows. A merchant should not conclude that merely because he is using high wattage he is thus going to get a high degree of attention. If he is in a brightly illuminated street his display may be adding a comparatively small proportion to the existing illumination. If it is less than one per cent, the increment would not be perceptible and a still greater increment would be necessary in order to have any pronounced attention value. The older generation can remember when brilliant lights in front of the store were used as attention devices. At one time a Childs Restaurant could be seen ten blocks away because the other establishments were comparatively dark and the percentage of illumination added to the store front by the white light was large in terms of the surrounding illumination.

Returning to auditory intensity devices, such as the speech amplifier on the truck, its effectiveness depends on the environment in which it is operated. On a busy thoroughfare it would not add the requisite one third to the existing intensity unless considerable amplification were employed, whereas in the suburbs a moderate intensity would be safely above the "difference threshold."

The same principle applies to other auditory devices such as the radio in front of a store, buzzers on the window glass, or even personal ballyhoo. It should be emphasized again that such devices,

unless used in moderation, may create ill will by adding unpleasant auditory stimuli to the already existent noise. Thus, the advertiser who is utilizing intensity as an attention device must consider not absolute intensity but the relative intensity and the actual percentage which he is adding to the existing background.

Speech amplifiers lend themselves to another advertising situation. At athletic events they are used to explain the play, particularly for the benefit of the persons whose seats are in such a position that they cannot see it in detail themselves. A modicum of advertising may be inserted in such a program. A microphone in a store window with an amplifier outside enables a demonstrator to give a more lucid performance. He is able to reach the audience without being cramped for demonstrational space as he would be if he performed in the doorway and relied only upon his own voice. Here again there is a possibility of creating ill will by adding too much noise to the existing excitement on the street, but if used with moderation and with a really interesting and skillful demonstration, the device may be effective.

MOTION

Moving objects are very effective in arresting attention, as may be seen even with the lower animals. One can sit quietly under a tree, and the birds and squirrels will approach, but if he makes the slightest motion, they will immediately depart. Moving stimuli play a very vital part in their lives, as they did in the lives of our remote ancestors. Innate tendencies direct attention to the moving advertising display, whether it be an electric sign that goes through gyrations, a manikin plying a safety razor in a store window, shoes aridly stepping in and out of water, or a mere revolving display table. Any banner or other device carried along the street or wafted through the air utilizes this principle of motion. A telephone company found that 6 per cent of the passers-by stopped to look at a motionless window display on a normal day, and forty-five per cent stopped the next day when the same simple display was in motion.³

Peripheral vs. Foveal. Motion has another peculiar advantage, in that it is a potent stimulus to attention even in the periphery of the visual field. Laboratory experiments bring out the fact that a subject looking directly at two points can discriminate that they

³ Anon. "Peeled Eye Department," *Printers' Ink*, September 29, 1932, 19, 16.

are two when they are separated by a visual angle of about two minutes of an arc. With smaller angles they appear as one point. The visual angle is obtained by drawing a straight line from each point to the focal point in the eye and measuring the angle between the lines; the minimal angle is called the threshold for extension. A similar experiment may be conducted to find the threshold for movement, that is, the slightest amount of motion which can be detected, and the result is essentially the same. When this experiment is repeated with both types of stimuli in the periphery of the visual field, the threshold for motion is not greatly increased but the threshold for extension is approximately eight minutes. Thus the periphery of the retina is much more sensitive to moving than to stationary stimuli. Along with this tendency goes a higher attention value for the moving objects. The everyday instance of this principle is the tendency to notice moving automobiles at one side although failing to notice the stationary ones.

These findings regarding foveal and peripheral perception of moving and stationary objects have obvious implications for the outdoor advertiser. A stationary display, such as a poster board, is at a disadvantage when located in what would normally be the outer portion of the prospect's visual field. A study of poster boards by the technique of carrying people past in automobiles and subsequently administering recall and recognition tests for the content of the boards brought out the fact that a head-on location, that is, with the board almost at right angles to the highway and close to it, was 186 per cent superior, for subjects unaware of the purpose of the test, to boards located parallel with the highway and thirty feet back from it.¹

A moving display, on the other hand, will be readily perceptible and presumably attract attention even if it is in the margin of the visual field. Moving electric signs, for example, on the tops of buildings, considerably above the normal line of vision, or back from the street or even down a side street, have fair attention value. Consequently, if the advertiser is deciding upon a location for an outdoor display he should take into consideration whether he is to use moving or stationary arrangements, and in the latter case he should seek a head-on location. Even in a head-on location there is no objection to a moving display. In fact, it would be

¹ Ringwald, J. C. *Psychological Study of Poster-Board Advertisements*. Ph.D. Thesis, Ohio State University, 1930.

better than a stationary one because of the intrinsic attention value of motion, but in the distinct periphery of the visual field the moving feature is almost indispensable.

Moving Pictures. Another important field for advertising in which motion is used as an attention device is the moving picture. Motion on the screen operates in the same way as the motion of actual objects, although it lacks the three-dimensional aspect. Other things in the theater likewise contribute to a high degree of attention, such as the darkness and the novel effects which are possible with typography or cartoons. Motion, however, is a prominent element of the whole situation. In the early days advertising was injected into the moving-picture program to an inordinate degree. After the audience developed the habit of closing the eyes during the advertising or of staying home altogether, it was limited mainly to the announcement of forthcoming attractions.

The audience attended primarily for amusement and paid for it, so that the irritation at the distraction by the advertising was natural. The reader of the magazine or newspaper also has advertising injected along with his amusement, but the situation is different. On the printed page the reader can skip around at will and does not lose time from his main objective, but in the theater if the advertisement is run the audience must wait. Consequently, with the present organization of that form of amusement extraneous advertising cannot play a very large part. Efforts are sometimes made to introduce a little surreptitious advertising in the course of an ordinary picture. One of the characters in lighting a cigarette may display the name on the package. An educational film regarding the coffee industry showed some bales of coffee on a wharf in South America with rather conspicuous labels indicating the destination. These possibilities are limited because if the technique becomes too obvious the public will again develop a hostile attitude. Suggestions have been made as to the possibility of sponsored films. If the radio audience is willing to listen to advertising announcements in return for free entertainment of good quality paid for by the sponsor, it is pointed out that perhaps the moving-picture audience would be willing to do likewise. If the sponsor actually bore most of the cost of the entertainment, so that the audience was admitted for five cents instead of twenty-five, it is conceivable that people would be willing in turn to look at a brief credit line or listen to a few selling points in connection with the

film. The picture might merely be preceded by a brief statement to the effect that this film is "presented to you by the courtesy of so-and-so." The device obviously would have to be coupled with a reduction in price so that the audience would realize that it was getting something in return for submitting to the advertising. Forcing the sponsored film upon the public directly with no change at the ticket window would create ill will.

A few other marketing uses of moving pictures may be mentioned. Some salesmen are provided with portable projectors and films showing the product in its various uses. Moving pictures of an educational nature are produced by certain industries and lent to private organizations which may wish to project them. The film gives interesting educational information and also a moderate amount of institutional advertising for the company. That there is a field for this type of advertising may be seen from the fact that 22,635 organizations in 9826 communities inquired in 1934 about industrial motion pictures.¹ Films may also be employed in stores to demonstrate how a particular product may be used, for instance, a picture of a small child operating a hookless fastener. In all these cases the sheer effect of motion is an important factor in keeping attention on the film.

Suggested Motion. The effectiveness of moving stimuli as attention devices should not be confused with mere suggested motion in stationary advertisements. The latter does not touch so fundamental a biological level. The pictures may show dust flying up from wheels or a person's clothing fluttering in the breeze as though he were moving rapidly, or may even attempt to give a suggestion of motion by streaking the letters in printing. Such devices secure attention, however, through arousing interest in the possibilities of the moving object rather than through any fundamental mechanical effect.

In creating a suggestion of motion one fundamental principle should be observed. The object, if animate, should be shown at what would normally be a resting point in the actual motion. Any action can be analyzed into phases in which the individual is practically stationary and those in which certain members are moving. In throwing a ball, for instance, there is a pause at the beginning of the throw and at the very end, whereas between these points the

¹ Ganz, W. J. "Motion Pictures in Advertising. You Ought to be in Pictures," *Advertising and Selling*, October 24, 1935, 25, 28 ff.

motion is continuous. Even in walking there is a point at which the individual is almost at rest when the foot is just touching the ground. The importance of this principle can be seen by instances in which it is violated. A photograph of a man throwing or hitting a ball in the middle of the stroke looks decidedly unnatural and carries little impression of motion. The picture of a high jumper in midair half-way up to the bar is much less suggestive of motion than a picture of the take-off or just as he clears the bar. The explanation of this principle is that the actual moving object is more clearly seen at the resting point than during the moving phase. Consequently, a portrayal at these resting points gives the object the appearance it normally has to the observer and it thus seems natural. If the advertiser is using suggested motion with men or animals he should attempt to portray them at a resting point in the motion. It should be emphasized again that this suggested motion falls far short of the actual sweep of the image across the retina from the standpoint of attracting attention.

CONTRAST

Brightness Contrast. Contrast has a distinct attention value. We are quite responsive to the tall man with the short wife, the cool breeze on a hot day, the hush after the radio is switched off, or even the stopping of the clock. Four types of contrast are of interest to the advertiser — brightness, color, size, and time. The first of these has its maximum effect in the black and white drawing with no shading or in the black letters printed on the white page. Other arrangements may be desirable for various reasons, such as the greater artistic possibilities of the half-tone or suggestions of texture in a grayish background for the letters, but for sheer contrast effect, the black and white represent the extreme. The question arises in this connection as to possibilities of using white letters upon a black ground — the so-called “reverse” typography. This arrangement is often used in the interest of novelty, but another problem arises immediately as to whether this reverse arrangement affects legibility. If the result is unfavorable from this latter standpoint it may offset the gain in attention value due to the novelty. The available evidence indicates that reverse typography is not so legible as the normal.

Reverse Typography. In one experiment short words, some

black on white, others white on black, were displayed at a distance and moved toward the subject until he could read them.¹ The type was, of course, all of the same point. The words set in black type were read on the average at a distance of 160 cm., while the reverse typography averaged 140 cm. The difference of some 15 per cent was highly significant statistically, and all subjects who participated read the black type from a greater distance than the white. In another study² the subjects merely read a passage at their natural rate and reported when they had finished. White letters were read at the rate of 4.26 words per second, whereas black words averaged 6.06 per second, a difference of 42 per cent.

A more exhaustive experiment checked the speed of reading by means of a group of short paragraphs each of which contained one wrong word.³ Two similar blanks or forms were used. In one series both forms were printed with the usual black on white. In a second series form A was printed with black on a white field and form B in reverse. It should be noted that the reverse printing was not done with white ink on black paper, but a plate was made to print the black background. When form A of the first series was presented and followed by form B, using the same subjects in each case, form B proved to be 4 per cent less legible than form A. In the second series form B proved to be 16 per cent less legible than form A. The difference was very clearly of statistical significance. This experiment confirms the preceding one in indicating that reverse typography is less legible than the usual black on white.

Inasmuch as the same degree of contrast of brightness is present in both cases, these results must be attributed to habits of reading and unfamiliarity with the reverse typography. Being compelled to read reverse typography would be somewhat analogous to reading letters that were upside down or went from right to left across the page. It is conceivable that, with repeated practice, a person could become as adept at reading reverse as at reading ordinary typography. The reader of advertising, however, does not have this practice, and so, as a practical matter, the white letters are certain to slow him down. The decision as to the use of this device may rest upon the extent to which rapid reading is important. If the

¹ Holmes, G. "The Relative Legibility of Black Print and White Print," *Journal of Applied Psychology*, 1931, 15, 248-251.

² Starch, D. *Principles of Advertising*, p. 669.

³ Paterson, D. G., and Tinker, M. A. "Black Type vs. White Type," *Journal of Applied Psychology*, 1931, 15, 241-247.

headline is brief and set in reverse the novelty may have sufficient attention value to warrant the use of this arrangement. On the other hand, it would be of doubtful value to put the entire advertisement in reverse if the reader were expected to peruse it in any detail. The small one-inch bullets, a column wide, are frequently set entirely in reverse. The apparent success of this arrangement may be attributed to the fact that comparatively little reading is involved.

Color Contrast. The advertiser who is employing contrast between colors as an attention device should take account of the principle of complementary colors. For every color there can be found another one which if mixed with it in the retina will produce gray. This mixing should not be confused with the mixing of pigments. In the laboratory it is obtained by rapidly rotating a disk, part of which is red, for example, and part yellow. If the rotation is sufficiently rapid to eliminate flicker, the after-effect of one color still persists in a given spot on the retina while the other color is actually stimulating that spot, with a resulting mixture. Most combinations of colors under these circumstances yield an intermediate hue, as when the red and the yellow produce orange. However, each color does have one other which, when mixed with it in this fashion, gives gray. Blue and yellow, for example, operate in this fashion, likewise red and a particular green. This same principle produces a complementary after-effect, as when one emerges from the red light of a photographic room and things appear green. Under laboratory conditions looking at any particular color and then at a neutral background will produce the complementary after-image. A similar phenomenon appears in simultaneous presentation of colors. The red area, for instance, tends to induce a complementary green in the adjoining area. If the red and green are presented together the red will make the green look greener, and vice versa, by virtue of this contrast effect. The same thing would apply to any other pair of complementary colors. Consequently, if the advertiser wishes to use a striking contrast effect for attention purposes he may achieve this by employing complementary colors.

Size. A large object beside a small one attracts attention because of the contrast in size. An actual illusion is often created to the effect that the former is larger than it really is. Two circles of equal size may be presented, one of them surrounded by large circles and the other by small ones. The uninformed observer, when called

upon to compare the sizes of the two test circles, will invariably state that the one surrounded by the larger circles is actually smaller than the other. A small man with a large wife receives more attention from the public than he really deserves.

This principle is capitalized in advertising by showing a large piece of machinery with a comparatively small human being standing beside it. Sometimes a person of less than average size is selected advisedly. The contrast not only catches attention but enhances the apparent size of the machine and leaves the reader with an impression of its magnitude. Similarly an inanimate object may be used by way of contrast. For instance, a large locomotive may be photographed alongside a small model. Such an arrangement serves two functions: it dramatically emphasizes the size of the object in question, and it attracts attention because of the contrast.

Temporal Contrast. A further aspect of contrast is temporal in character. The typical advertising application is the electric sign with a flasher which turns it off and on intermittently. The repeated stimulation creates a summation effect which is more intriguing than continuous stimulation. One becomes adapted to the pressure of the shoes on his feet or the weight of the glasses upon his nose, because the pressure is applied continuously. The same light pressure applied intermittently, as in the Chinese water cure where water drips upon a certain spot of the body, becomes very noticeable. The same principle is used with highway blinkers, the hope being that the intermittent blinker will attract attention more than if the light is on continuously. The suddenness of the stimulation is also part of the story.

Meaning. Contrast in meaning may also be considered here. It is different from the types of contrast just discussed, for it goes beyond the mere sensory impression and depends on an arousal of the association process. The contrasts just described operated on the attention largely by their mere sensory effect. Contrast in meaning may likewise aid attention, but it is designed also to emphasize certain selling points. The copy features the difference between the drudgery of old methods of doing housework and modern electrical methods, "one-hoss shay" models of automobiles compared with present rakish cars, pictures of the victim before and after using the reducing nostrum or the pimple remover, almost any commodity in the "gay nineties" in contrast with its modern descendant, and even

subtleties like "\$585 and *up* at the factory; \$225 *down* delivered in New York." Such contrasts embody a long-circuit appeal but may incidentally have some direct attention value.

ISOLATION

Many advertisements fail to take advantage of isolation as an attention device. Everyone has been impressed on occasion by the way in which some particular item stands out from the rest of its background, provided nothing else near-by competes with it. One pedestrian passing the house is noticed more readily than that same person as a member of a group. An advertisement on a page by itself gets more attention than one mixed in with others — a point cited above in favor of the full-page advertisement. In the outdoor field a single display distinctly separated from others of the same sort has marked attention value. The writer still recalls standing on Harvard Bridge in the evening and seeing the huge electric display of the Library Bureau on the Cambridge side, with absolutely nothing anywhere near it.

Crowding the Advertisement. In the printed advertisement, alas, there is a great temptation to crowd. The advertiser is paying for the space and has a great many things which he wishes to say in that space. Perhaps a layout has been prepared with simple, strong, effective copy, but the president of the concern wants another display line, the production manager wants the trademark made a little larger, the secretary thinks that the package ought to be featured, the sales manager wants a paragraph addressed to dealers, and then the advertising manager thinks that the slogan should go in at the top. The result is that so much is put into the advertisement that the reader gets nothing. By analogy with the fable of the monkey who grasped such a large handful of nuts in a small-necked jar that he could not remove his hand, the reader's interest in a particular advertisement is limited, and if an attempt is made to force through too much, nothing will penetrate at all. The problem is more acute with the users of small space. Many of them apparently write copy with the idea that they have bought a column instead of two inches. At the other extreme is the jewelry concern that runs a full page with nothing on it but a small item of jewelry in the middle of the page and the display of the name of the concern. The ring catches everybody's attention because it is cut away from all competing attrac-

tions. An advertising agency ran a full page in large format containing nothing but thirty-odd words in 8-point type at the very bottom of the page. Everyone read the thirty words. A picture "floating" in white space is irresistible. A full page carried an inset the shape and size of a walnut. Inside this nutshell was the statement: "Majority coverage; better advertising presentation; lowest mill line cost. *New York News*." The advertisement caught attention because of the isolation factor, and also embodied the suggestion that here was the whole story in a nutshell. The more the advertisement can be constructed around one conspicuous feature which stands out from the other things, the better. Even on a crowded page the small advertisement may be given an advantage by using part of its space simply for isolation purposes, and having a white area with a brief message in the center of that area. This white region in the crowded page stands out like an oasis and secures a high degree of attention.

Radio. The radio advertiser has similar problems. Crowding too much into an advertising announcement is even more noticeable when it is done verbally than when it is on a printed page. The reader scans copy in a brief time, and the less interested he is, the faster he scans. With a verbal announcement he has no control over the time and either has to listen to the whole message or else direct his attention elsewhere. Considerable discussion appears in the technical journals as to the amount of advertising material which can be introduced into the radio program. One problem is to know how much the public will stand without turning the dial, but the problem which arises in the present discussion is the amount of advertising which the listener can actually perceive and remember. If the attempt is made to tell him too many things about the product, especially when it is impossible for him to look over printed copy to refresh his memory, he will not carry away very many discrete impressions. It is the same principle which makes it more tedious to learn the ritual of a secret organization orally than to study it in a manual. This does not mean that efforts should be abandoned to effect a sale by means of the radio announcement, but merely that the announcer should not attempt to tell the whole story at one time. He can suggest one or two sales points and "plug" the name of the product, but that is about all that he can expect the prospect to remember. If it is necessary to tell a great many things about the product, the only feasible way is to present a series of programs to

which the same prospect will listen repeatedly, and mention the different selling points briefly a few at a time.

Range of Attention. The problem of crowding the advertisement involves the range of attention, which has been discussed earlier (p. 154). There is a distinct limit to the number of things to which a person can attend simultaneously. The technique, it will be recalled, involved presentation of isolated digits, letters, or words in a tachistoscope. Frequent confirmation has been made of Wundt's early findings that the range of attention for discrete stimuli is about six. Beyond that, the average individual cannot report the stimuli correctly. If the letters, however, are grouped into units such as words, the range is extended, and the subject can grasp almost as many disconnected words as he can separate letters. If the words form a phrase he may even get a few more words, but six is normally about the limit. Thus the effective length of a headline or the number of centers of interest in the advertisement is limited.

Another approach to the problem of attention range bears even more directly upon the problem in hand. In this instance, cards containing isolated words were exposed briefly. Some cards contained five words, others ten, and still others twenty-five. After the exposure, the subject wrote down immediately the words which he could recall. When there were five words the average subject recalled the five. When there were ten words he recalled only 4.9 and with twenty-five words he recalled 4.8.¹ Thus no matter how many were exposed the subject was able to grasp only about five. This result further corroborates the foregoing suggestion that five or six impressions is about the limit for the reader's attention.

Results of another experiment throw some light upon the problem of lengths of headlines. Almost 400 subjects looked through the advertising section of a magazine for twenty minutes and then wrote down the advertisements which they could recall. In the magazine were ten full-page and seven half-page advertisements which had no picture, or at least an entirely insignificant one. The results for these pictureless advertisements were evaluated separately, assuming that the headline was the main attention factor. The results are summarized in Table 21 which shows the frequency with which the different advertisements were mentioned. For instance, the average full-page advertisement with the short headline was mentioned by thirty-four of the subjects, whereas the average full-page advertise-

¹ Starch, D. *Principles of Advertising*, p. 493.

TABLE 21. RECALL OF ADVERTISEMENTS WITH LONG AND SHORT HEADLINES *

	Less than Six Words	Six Words or More
Full page.....	34	13
Half page.....	5	2

* Starch.

ment with the longer headline received thirteen mentions. The trend for half pages is similar. The advertisements with short headlines were noted over twice as frequently as those with long headlines.

When the question is approached by the historical method, it is found that fifty years ago only about a third of the advertisements contained five words or less in their headlines, whereas at present the percentage is in the vicinity of 70. In a recent count of a random sample of advertisements 27 per cent were four words and 20 per cent were five words in length. Occasional headlines of twelve or thirteen words were found, but very rarely. In such a tabulation it is difficult to evaluate some advertisements because several phrases appear in heavy type and it is not clear which is the actual headline. If several such apparent headlines occur in a single advertisement the difficulty incident to attention range is accentuated. Historically, then, the trend has been toward the use of a shorter headline.

Reader's Attitude. It is suggested by a recent investigation that the problem has been slightly oversimplified and that the effectiveness of the headline depends also upon the attitude of the reader. In this experiment the material consisted of headlines in the *Saturday Evening Post*, ranging from four to fifteen words.¹ The headlines were also classified according to number of ideas or "thought units." These latter measurements of the headline correlated highly with the actual number of words, as may be seen from Table 22. In the first part of the experiment the headlines were given to the subject in an envelope. He looked through them at his own rate and then recalled them. The relation between recall and length of headline (thought units) was comparatively slight. Then the headlines were presented in a tachistoscope with an exposure of 1½ seconds. The correlation of recall with number of words was —.80 and with

¹ Lucas, D. B. "The Optimum Length of Advertising Headlines," *Journal of Applied Psychology*, 1934, 18, 665-674.

TABLE 22. CORRELATIONS OF LENGTH OF HEADLINE WITH RECALL *

Thought units — words.....	.88
Recall (reading at own rate) — thought units.	— .19
Recall (tachistoscope) — words.....	— .80
Recall (tachistoscope) — thought units.....	— .85

* Lucas.

number of thought units — .85. The implication of these correlations is that if one is perusing a magazine hastily and devoting about the same brief time to each headline the short headline is superior. On the other hand, if the reader adjusts himself somewhat for different headlines by putting more attention on the longer ones, then the advantage of brevity disappears. The usual tachistoscope experiments do not take account of the possibility that the reader of the publication may vary his tempo. Observation of readers indicate that the same individual varies in his attitude at different times; for instance, he skims through more hastily when waiting for a train than when spending the evening at home. The newspaper with its varied content and its news headlines designed for the hasty reader stimulates a more superficial attitude than the magazine. Brevity of the advertising headline would appear to be a more important consideration in the former case.

The headline derives further importance from the fact that very frequently it is all that many readers get. An interesting check was made upon this point by printing a headline offering a sample for ten cents and later on in the last paragraph of the text of the advertisement making a free offer of a full-sized package. The advertiser received very few requests for the free package but a whole mailbagful of dimes.

Experiments on Isolation. Returning to the consideration of the whole advertisement with reference to crowding as compared with using white space for isolation purposes, experiments have been conducted to determine quantitatively the attention value of isolation. Pages were prepared for a dummy magazine with half-page and full-page advertisements presented in the usual manner. By way of comparison, some full pages had a half-page advertisement centered in the full page, thereby leaving fifty per cent of the area blank. This arrangement distinctly isolated the smaller advertise-

ment in the center. It was then possible to compare the ordinary half page with the ordinary full page, and likewise with the full page in which half of the area was merely white space. The material was prepared with the longer dimensions of the half-page advertisements both in horizontal and in vertical directions. The results may be converted into terms of the attention value of the ordinary half-page advertisement. If this value is taken as 1.00, then the ordinary full-page advertisement has a value of 1.41 — the same figure which appears in one of the studies cited earlier (p. 159). However, under these same conditions the full page with half the area used as white space and with merely a half page of advertising in the center of that space had a value of 1.76. In other words, when isolation is used, the attention increases very nearly in proportion to the area of the advertising space rather than lagging behind, as has been shown to be the case in the conventional experiments. There are further experimental indications that advertisements in a poorer location profit more from the use of isolation than do those in a better location, and also that the better advertisements profit slightly more than the poorer ones by this device.¹

In the above experiment 100 per cent additional white space for isolation purposes was employed. The question arises as to whether or not this is the most favorable arrangement, even though it is superior to no isolation at all. Strong secured further data which bear upon this point.² They were obtained, by very much the same technique, for an ordinary quarter page and also a quarter page centered in a full page. In this case there was 300 per cent additional white space with an increased attention value of 151 per cent. Data were also secured with 5 per cent additional white space yielding a 14 per cent increase in attention value. These data are plotted in Figure 2. The abscissa is the percentage of additional white space. The ordinate represents the percentage of additional cost with reference to one curve and the percentage of additional attention value with reference to the other. The approximately straight line represents the relation between space and cost. In some magazines there is a direct relation between the two, with the rate for a half page twice that for a quarter page, and the full-page rate four times that for a quarter page, or with the page arranged in three columns with the rates for one, two, and three columns in the ratio of

¹ Cf. Poffenberger, A. T. *Psychology in Advertising*, p. 231.

² Strong, E. K. "Value of White Space in Advertising," *Journal of Applied Psychology*, 1926, 10, 107-116.

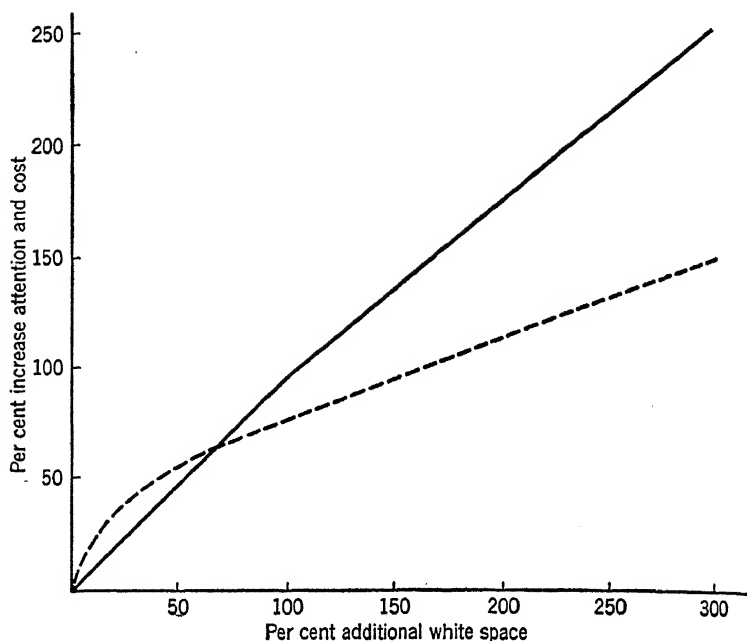


FIGURE 2

one, two, and three. An investigation of the rates for eight current magazines of national circulation revealed that six of these had the rate exactly in proportion to the space, while in the two others the larger space was proportionately somewhat cheaper. The increase of cost with size as shown on the ordinate of this curve represents the average ratio for the eight magazines. If the rates had been directly in proportion to cost the curve would have been a straight line rising at an angle of 45 degrees. The other curve represents the attention value as brought out in the preceding data. It is to be noted that the attention value increases more rapidly than the cost up to about 60 per cent additional white space. The highest point of the attention curve in comparison with the cost is between 20 per cent and 30 per cent additional white space. Beyond 60 per cent diminishing returns begin. This experiment brings out in quantitative fashion the value of isolation as an attention device. It is evident that up to a certain point it more than pays for itself.

SUMMARY

Intense stimuli attract the involuntary attention. As the illumination in a store window was increased, the proportion of the passers-by who stopped to view the display likewise increased. The auditory intensity employed by the voice from the sky was unusually effective in its initial campaign. When using intensity as an advertising device, account should be taken of the psychophysical law to the effect that if one sensation is to be noticeably more intense than another its physical intensity must be increased by a certain proportion. This means that the value of intensity in advertising depends on the background against which the object is perceived.

The effect of motion as a stimulus for attention is manifest in cases in which a much larger proportion of pedestrians stops to look at a moving window display than at a stationary display. Motion is an effective stimulus even in the periphery of the visual field, so that with a moving display a head-on location is not necessary. The moving-picture screen would seem to be a good advertising medium theoretically, but the public resents the presentation of advertising other than that of forthcoming attractions. Pictures of an educational nature and including a modicum of advertising are prepared by some concerns and lent to private parties for their entertainment. Proposals have been made of sponsored films, analogous to sponsored radio programs. Suggested motion in a stationary picture is not so fundamental biologically nor so effective in advertising as actual motion. If it is employed, the best effect can be obtained by portraying the individual in what would be a resting point in the normal course of the motion.

Several types of contrast serve to attract attention. One of these is brightness, and its maximum effect is obtained by the customary black letters on white paper. The reverse arrangement with white letters on black has the same degree of contrast but is less legible, perhaps because of unfamiliarity. In a short heading where speed of reading is unimportant, the reverse typography may introduce a desirable element of novelty. Contrast in color may also be used effectively and is greatest with complementary colors where each tends to induce the complementary in adjacent areas, thus heightening the color already there. Another aspect of contrast is size. A picture of a large product beside a comparatively small person strikes the attention. Temporal contrast is embodied in the

flashing electric sign. Contrast in meaning goes beyond the mere mechanical types just mentioned but serves the same general purpose.

An object in isolation derives considerable attention from the fact that it is isolated. All too frequently the advertisement is crowded so that none of the items register satisfactorily. At the other extreme, a few words in the midst of a white page arrest every reader who sees that page. The underlying principle is that of the range of attention; that is, the fact that the number of discrete items to which one can attend simultaneously is limited to six or seven. This principle imposes obvious limits to the number of features which should be included in an advertisement or even the number of words in a headline. The matter is more acute in media such as newspapers, which the consumer peruses hastily. As white space is added to the advertisement for isolation purposes, attention value increases more rapidly than the white space until the latter is about 60 per cent as great as the rest of the advertisement. Thereafter additional white space yields diminishing returns.

CHAPTER XI

POSITION OF ADVERTISEMENTS

POSITION ON PAGE

Tachistoscope Experiments. The location of the advertisement is an important consideration from the standpoint of attention. The advertiser often specifies his desire as to the page in the medium or the position on the page, and the publisher increases his rates for certain locations. These practices suggest problems which are amenable to experimental investigation. In some of the earlier experiments dealing with position on the page, booklets were used with nonsense syllables or words in different locations; the subjects went through the booklet and then wrote down what they could recall. The results indicated that the upper part of the page was distinctly superior to the lower, but the difference between left and right was not so clear-cut. A more exhaustive experiment is reported by Adams.¹ He used block capital letters distributed in various positions on the page. These capital letters differed very slightly in intrinsic attention value so that the principal variable was the position in which they occurred. One arrangement had fifteen of them on a page — five rows of three letters each; another eight on a page — four rows of two letters each; another had four letters arranged in a square; and still other arrangements had two letters. The pages were exposed for a half-second in a tachistoscope resembling a book with a hinged cover. The subject observed each page and immediately reported the letters he had seen and the order in which he saw them. The results were analyzed from two standpoints: the frequency with which a position was seen first, and the frequency with which a position was seen at all. A few of the results attained by each method of analysis are presented in Table 23. The entries show the percentage of the cases in which the given location was seen. The topographical arrangement of the percentages corresponds to that of the capital letters on the page. For example, with an eighth-page division, the upper left corner is seen first 86 per cent of the time and the upper right corner 6 per

¹ Adams, H. F. *Advertising and Its Mental Laws*, p. 93.

TABLE 23. POSITION AND ATTENTION *

	Percentage of Times Position seen First		Percentage of Times Position seen at All	
Eighth- page division	86	6	25	22
	4	2	18	18
	1	0	5	7
	1	0	2	3
Fourth- page division	81	4	34	28
	13	2	21	17

* Adams.

cent. These figures tend to show that the upper left corner is distinctly superior in attention value. The results are less striking in the right portion of the table, although the trend is still in favor of the upper left corner. With the quarter-page division, as indicated in the lower part of the table, the upper left was seen first 81 per cent of the time, manifesting much the same trend as in the other arrangement. Data are given in Adams's original experimental report for a fifteenth-page division and various half-page divisions. The results conform essentially to those just presented. It seems clear that when the reader is confronted with a flat page, the upper portion and the left portion secure a higher degree of attention. The results are much more striking in reference to the position seen first than in reference to the actual seeing of any position. The results were checked further by adjusting the tachistoscope so that the "book" opened the other way, and the subject was apparently looking at the left page instead of the right. The results differed very slightly from those cited above.

Eye Movements. Similar experimental evidence comes from an observation of eye movements made while the subject looked at two advertisements held in front of him. The number of times the first fixation went to the left advertisement was 3.28 times the frequency with which the first fixation went to the right. The corresponding ratio during the first ten seconds was 2.20 to 1.00 but for the total thirty-second period was only 1.19 to 1.00. This result corroborates the preceding experiment in that the value of the position is especially pronounced for the first act of attention and that thereafter the attention shifts to the other material. The other positions have a reasonable attention value, provided sufficient time is allowed for observation.

The leftward tendency of attention appears also in a quite different type of experiment.¹ Two spots of light were shown in a tachistoscope, one of constant and one of variable intensity. The variable one was changed until the two seemed equal in "clearness" to the subject. It developed that the one on the left could actually be slightly dimmer and still seem as clear as the one on the right. The left position had a somewhat higher intrinsic attention value. A later study indicates that left-handed persons show the reverse tendency, suggesting that the causation may involve more than mere reading habits.²

Inquiries. An analysis was made of ten thousand newspaper inquiries tabulated according to the position on the page of the advertisement yielding the inquiries.³ Two advertisements with unusual pulling power were discarded from these results as manifestly atypical. The advertisements were approximately quarter-page in size, and the results were based on a campaign in forty-three different newspapers. Details are not given regarding the content of the advertisements and whether variables other than position may have been involved. The inquiries per ten thousand circulation for each location are shown in Table 24. On the left page returns vary com-

TABLE 24. INQUIRIES FOR NEWSPAPER ADVERTISEMENT *

	Left Page	Right Page
Lower left	2.2	2.1
Lower center	2.8	2.6
Lower right	2.6	3.0
Upper right	2.6	4.1

* Benner.

paratively little with position. On the right page, the upper right portion is superior and the next in order comes the lower right section. Unfortunately, the upper left portion of the page was not involved in the study, so that a direct comparison on the point previously discussed is impossible. From the original data it is impossible to determine whether the differences between locations as revealed in the table are statistically significant. A very rough ap-

¹ Dallenbach, K. M. "Position vs. Clearness as a Determinant of Attention," *American Journal of Psychology*, 1923, 34, 282-286.

² White, A. M., and Dallenbach, K. M. "Position vs. Intensity as a Determinant of Attention of Left-Handed Observers," *American Journal of Psychology*, 1933, 44, 175-179.

³ Benner, C. T. "Position and Pulling Power," *Printers' Ink*, August 8, 1935, 172, 25 ff.

proximation to such analysis may be made by reducing inquiries to percentages, rather than evaluating them in their present form, and attempting to estimate from the total sample the number of newspapers contributing to a given percentage and then applying the usual formula. With this qualification it appears that the difference between 2.1 and 4.1 inquiries in the second column is a real difference. The results do not indicate whether the superiority is due to the upward or the rightward aspect. The data for the left page are of doubtful significance statistically according to this analysis.

Reading Habits. The reason for the tendencies revealed by the experiments can be found in ordinary habits of reading. After the age of six or seven, when confronted with a printed page, a person naturally looks first at the upper left portion because that is where the material conventionally begins. This ocular reaction soon becomes habitual.

The rôle of eye-movement habits may be seen from the following experiment on a different problem with Chinese subjects. They went through a page of disconnected letters crossing out all the a's and the e's. In one series they went horizontally across the lines and in another series vertically down the columns.² The subjects also performed a similar task using Chinese characters, canceling them both horizontally and vertically. Their previous training in reading Chinese involved the vertical direction and their training in reading English involved the horizontal direction. In the experiment they were more efficient in canceling Chinese characters vertically but better in canceling English letters horizontally. The eye movements to which they had been accustomed in dealing with the particular material in question influenced their efficiency in cancellation and the distribution of their attention. The writer has had subjects in the laboratory participate in experiments with letters in a tachistoscope similar to those described above, and found discrepancies in the results on the part of students who in childhood had learned a language in which reading did not start at the upper left corner. The importance of reading habits in directing attention to different parts of the page seems evident.

Other Habits. In addition to reading habits, the eye movements used in looking at pictures are also involved. In this case the attention usually goes to what is called the optical center, a point slightly

² Chen, L. K., and Carr, H. A. "Ability of Chinese Students to Read in Vertical and Horizontal Directions," *Journal of Experimental Psychology*, 1926, 9, 110-117.

above the geometrical center of the picture. This habit would account for the upward trend of attention, but would not give the left any distinct advantage over the right.

There is a further habit of observing more closely the upper rather than the lower part of objects. One looks more at a person's head than at his feet. In reading print the upper parts of the letters are noticed more readily than the lower. For instance, if the lower half of a line is covered it is more legible than when the upper half is obscured. The sightseer is more interested in the upper windows of a building than in the basement windows; and the prospect spends more time looking at the body of an automobile than at its wheels.

All of the foregoing factors tend to enhance the superiority of the upper part of the page, and when the reading habits are pronounced, the left would likewise be superior. It is conceivable that in reading a magazine replete with pictures, the reader would follow his picture attitude rather than his reading attitude, with attention going consequently to the upper part near the center rather than to the left. In such a medium the desirability of getting the advertisement at the left of the page would not be so great as if the medium included mostly textual material.

Bound Pages. The foregoing discussion involves flat pages rather than pages bound together tightly as they are in some magazines. This binding constitutes an additional problem. In the magazine that will not lie flat on a table, the inner edges of the pages obscure one another unless the reader breaks the magazine wide open. Consequently in the ordinary handling of such a magazine, it is probable that the inner portions of the pages, or at least of the advertising pages where one is not reading the entire width of the page for some other purpose, would be at a disadvantage. It is necessary in such cases to modify the foregoing conclusions to the extent that while the upper portion of the page would still have a distinct advantage over the lower, the outside edges of either page would be superior to the inside. The upper outside corner would probably get the highest degree of attention. Some experiments with dummy magazines bound in this manner showed that the inside portions were only 40 per cent as effective as the outside portions of the page. The material was prepared carefully, so that an advertisement which was on the inside of a page in one dummy would be on the outside of a page in the other dummy. The results of both dummies averaged together gave a fair index of the value of inside and out-

side edges, and the difference was of the magnitude indicated. The difference was even greater with the smaller advertisements. An eighth-page advertisement on the inside of the page was seldom mentioned by the subjects. *

RIGHT AND LEFT PAGES

Experiment. If various parts of a page differ in attention value it is conceivable that the right page in general may differ from the left. This problem was approached experimentally by means of a dummy with full-, half-, and quarter-page advertisements. The experimenter opened these pages for a fraction of a second, keeping the exposure time as constant as possible, and the subjects then attempted to recall the advertisements. The results, averaging together all the subjects and all the sizes, indicated that the right page was 53 per cent superior to the left. Similar results were obtained when averaging data for two dummies made up in such a way that advertisements which were on the right page in one dummy were on the left in the other.

In a similar experiment using actual magazines, rather than a dummy, for a series of colored advertisements the advantage of the right position was 9 per cent; for a considerable number of black-white pages 6 per cent; for the quarter pages a trifle over 1 per cent. There was one anomalous result in the case of half-page advertisements, where the left page proved to be 8 per cent superior. In this experiment, however, the other variables in the content of the advertisement were not controlled, and the results should be qualified accordingly.

Returns. Allusion has been made previously to Starch's analysis of large numbers of replies collected from advertisers. He tabulated them according to whether the advertisements were on the left or right page and found the replies per 100,000 circulation were 210 for the left and 240 for the right. The right page thus had an advantage of 14 per cent over the left when considering the average of some 126,000 replies. Starch states that the results held true regardless of the size of the advertisement, the type of magazine, or the type of advertisement. In a subsequent tabulation (1930) with about two thirds more replies added, the superiority of the right page was still 14 per cent when dealing with half-page advertisements. With full pages the difference was only 4 per cent.

In actual practice no universal tendency is found for advertisements to be placed consistently on the right page as contrasted with the left. A random survey of a thousand pages in the *American Magazine* revealed that 56 per cent of the advertisements were on the right pages, and in the *Saturday Evening Post* the corresponding figure was 52 per cent. With reference to the full-page advertisements alone, the tendency was more pronounced, with 82 per cent of those in the *American Magazine* on the right page, and 67 per cent of those in the *Post*.¹

Habits of Manipulating Magazines. The usual explanation given for this superiority of the right page is based on habits of holding the magazine. It is suggested that the average reader most frequently holds the magazine before him with the right page somewhat broadside and the left at more of an angle. He thumbs through by picking up the right page and turning it up into a somewhat vertical position. Some systematic investigations have been made on this point. In one instance persons were observed in the periodical room of a library with reference to the way they were holding the magazines at the moment of observation and as to what material they were reading. In 33 per cent of the 178 observations the right page was held broadside and in 18 per cent the left page. This difference between 33 and 18 per cent is statistically significant (about 3.2 times the standard deviation; cf. p. 463). However, 49 per cent of the time neither page was definitely broadside. Furthermore, the subjects at the moment of observation were actually looking at the right page 63 per cent of the time. The results corroborate to some extent the above hypothesis that normal magazine reading habits involve holding the right page broadside more frequently than the left.

A more thoroughgoing experiment made it possible to analyze the problem in greater detail.² Seven hundred and twenty-six observations were made in waiting rooms, barber shops, physicians' offices, lounging rooms (hotels, clubs, Y.M.C.A.), streetcars, homes, and public libraries. The experimenter noted where the subject's eyes were directed, the manner of holding the magazine, and the nature of the material being read.

The results are shown in Table 25, which gives the percentage

¹ Kitson, H. D. "Right- and Left-Hand Pages in Magazines." *Journal of Applied Psychology*, 1923, 7, 10-12.

² Stanton, F. N. "A Study of Magazine Reading Habits." Unpublished.

TABLE 25. PERCENTAGE READING RIGHT OR LEFT PAGE AT MOMENT OF OBSERVATION *

	Left Page	Right Page	Difference ÷ Standard Deviation
All readers.....	40	60	7.4
Reading advertisements.....	31	69	9.0
Reading editorial material.....	45	55	2.6
Looking at pictures.....	40	60	3.1

* Stanton.

reading the left or the right page at the moment they were observed. Considering all the readers together, 40 per cent were occupied with the left page and sixty per cent with the right. The normal expectation would be 50 per cent looking at each page. The difference between 40 per cent and 60 per cent in this case is of statistical significance, as shown by the critical ratio of 7.4 in the last column. The data may be broken down according to the type of material which the person is reading. When it is advertising the difference is still greater, with 69 per cent looking at the right page and 31 per cent at the left. This difference likewise is significant. With editorial material, however, the difference is small. Finally when the subject is looking at pictures which are not in advertisements the percentages are again 40 and 60. The pages of an article are distributed about equally between right and left. Hence the subjects who were reading such articles at the moment of observation would be expected to be uniformly distributed in the two directions. On the other hand, when a person is merely looking through a magazine and not engaged in continuous reading, according to these observations he devotes more time to the right page. It is presumably in this attitude that the advertisement catches him, and hence this observed rightward tendency is of practical importance.

The results were also analyzed in regard to the actual way the magazine was held. Some of the data are given in Table 26. In 9 per cent of the observations the left page was held broadside with the right either perpendicular or at an angle, while in 14 per cent of the cases the right page was broadside. The results are more pronounced with the advertising pages, where the corresponding percentages are 8 and 21. With the editorial pages the difference is negligible. These results supplement the preceding in supporting

TABLE 26. METHOD OF HOLDING MAGAZINE *

	Left Broadside	Right Broadside	Difference ÷ Standard Deviation
All observations.....	9	14	3.0
Advertising pages.....	8	21	4.1
Editorial pages.....	9	12	1.2

* Stanton.

the assumption that habits of holding the magazine play an important rôle in the direction of the reader's attention.

The foregoing study dealt with reading habits for magazines in general. It is possible that the reader's attitude would differ in special cases. One study involved only trade journals, such as *Iron Age*, *Hardware Age*, *Motor*, and the *American Druggist*.¹ The results were obtained by interviews and questionnaires rather than actual observation of reading procedure. Forty per cent of the readers said that they skipped through and then went back, and the remainder read it from back to front. Twenty-six per cent of them stated that they read or saw all the advertisements in the publication in question. When asked their opinion as to where they preferred to have the advertisement located, over half of them did not care, 27 per cent said "back," 10 per cent "front" and 11 per cent scattered. A better controlled portion of the study secured returns from a medical journal and analyzed them with reference to the position in the magazine. Although 58,000 inquiries were involved in the study, there was no control of the content of the advertisement, some having coupons, free offers, and so forth. Analysis revealed that 14 per cent of the replies came from the front of the magazine, 42 per cent forward of the center, 24 per cent back of the center, and 20 per cent from the back.

These results minimize the importance of position in the trade journal and suggest that the reader goes through the whole magazine and picks out the things which are interesting to him. The possible implication is that readers of trade journals peruse them with a somewhat different attitude from the reader who is bent only on amusement. The former may look through the advertisements somewhat systematically on the chance that he may find something

¹ Hanford, M. E. "Right-Hand Page Well Forward, Requested," *Advertising and Selling*, February 18, 1935, 25, 23 ff.

that will help him in the trade. Similar habits may govern the readers of other class media such as professional magazines or those devoted to a specific hobby.

A field study was made with reference to newspaper reading. Over four thousand readers were observed in the elevated and the subway and in the waiting rooms around New York City. A count was made only of those who opened the paper fully and who turned the pages fully. Approximately two thirds of those observed looked at the left page before the right. The habits of manipulating a small and convenient magazine are manifestly different from those involved with the larger newspaper format.

POSITION IN THE MEDIUM

Experiments with Standard Magazines. In addition to its location on the page, the attention value of the advertisement should be considered with regard to its actual location in the medium. Some pages may be better than others, and a number of experiments have been conducted on this problem. When subjects were given magazines to peruse or looked through systematically prepared dummies, the advertisements recalled or recognized were tabulated according to their actual location in the medium. The problem may be considered first with reference to the standard make-up with an advertising section at the beginning and another at the end and the editorial material between these sections. The general trend of the results of such studies is somewhat as indicated in Figure 3. Along the horizontal axis are the successive pages of the magazine from first to last, with the left portion indicating the first advertising section, the blank portion the reading matter, and the right

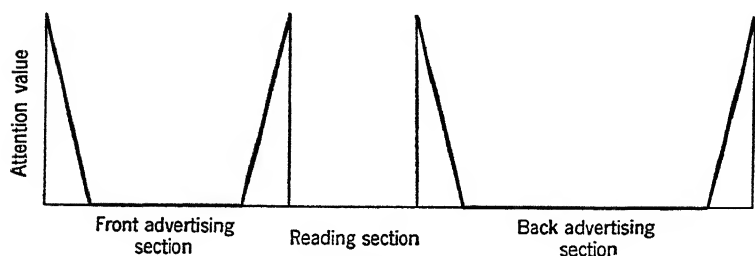


FIGURE 3

portion the last advertising section. The vertical axis shows the recall or recognition scores obtained in typical experiments.¹ The initial positions are effective; then the curve drops to a level which remains uniform throughout the main portion of the advertising section, with a rise again toward the end of that section. A similar arrangement holds in the second advertising section, which starts high, drops rather steeply to a low level, and goes up again at the end.

The relative height of these end positions varies somewhat in the different experiments. Starch had his subjects look through every page, and found the highest values for the beginning of the first section and the end of the last section while the two portions adjacent to the reading matter were slightly below these high points. Strong employed subjects who had read a magazine for other purposes and had not necessarily looked through every page. By the recognition technique he found the high points on the curves next to the reading matter. Both studies, however, bring out the fact that the initial and final portions of an advertising section have a superiority to the intermediate portions. The back cover derives additional value from the fact that when the magazine is lying around the cover is often seen and noted when the person is not reading the magazine at all.

Attention should be called to one aspect of the curve, viz., that it does not drop abruptly from the first page to the second page, but goes down at an angle. The second, third, fourth, and fifth pages still derive some value from the proximity to initial or final position, and are superior to those which are in the center of the section. In one study it developed that eight pages at the first and last of each section derived at least some measurable value from their position.

Primacy and Recency. This general tendency corresponds to the conventional laboratory findings as to primacy and recency in memory material. If the subject learns a list of words, the earlier and later portions are learned more readily than those in the intermediate positions. When a white rat is learning to find his way through a maze, it is the initial and final portions that are learned most quickly. This tendency for the initial and final portions of a section of advertising to have greater value than those in the middle is to be expected.

¹ Starch, D. *Principles of Advertising*, p. 785. Strong, E. K. *Position of Advertising*. Association of National Advertisers, Bulletin No. 5, 1913.

Experiments with Flat Magazines. The question arises as to whether the same principle would hold with the flat magazine in which the advertising is not segregated. When the reader is looking through a complete advertising section it is natural that the ordinary laws of primacy and recency should operate. With the flat arrangement there is less certainty that he will go through the section systematically. Starch conducted an experiment in which the subject turned the pages of flat magazines and looked at whatever interested him.¹ The results are included in the first column of Table 27. They are reduced to terms of the average full-page

TABLE 27. POSITION IN FLAT MAGAZINE

	Starch	Franken	Goode	Ferguson		Rates
				Men	Women	
Average full page black-white.....		100	100			
Average full page.....	100					100
Second cover.....	156	88	150	-30	-20	144
Facing second cover...	140		200	4	3	
Facing reading section.	159					
Double center spread..			250	6	10	288
Double spread.....			165			200
Facing third cover....	116		160			
Third cover.....	147	115	175	-19	-14	144
Back cover.....	209	280	280	- 5	+ 7	187
Early pages colored....		139				
Middle pages colored..		91				
Late pages colored....		115				
Early pages black-white		103				
Middle pages black-white.....		104				
Late pages black-white.		88				
Four or five pages after reading.....			150			
Four or five pages preceding back cover...			150			
Page 2.....				10	0	
Page 3.....				6	5	
Page 4.....				-22	15	
Facing cartoon.....				8	3	

¹ Starch, D. *Principles of Advertising*, p. 789.

advertisement, which is given an arbitrary value of 100. The corresponding ratios for the other positions as revealed by a recall test appear below in the column. The figures indicate that certain positions are distinctly superior, but this analysis did no more than tabulate the usual "preferred positions." The results indicate at least that the covers and the pages facing the covers show the effect of primacy or recency, and likewise that pages facing the reading section are superior to the average page. Thus far the results are in accord with the preceding discussion.

Hotchkiss and Franken conducted a similar experiment in which the subjects were given a copy of the *Saturday Evening Post* with instructions to read a certain article. Subsequently they were tested by the recognition method for full-page advertisements in that issue. Some of the results are given in the second column of the table in a form which is comparable with the preceding column. Here the value of 100 is assigned to the average full-page black and white advertisement. It is apparent that the so-called preferred positions with one exception were superior.¹ The results were also analyzed with reference to pages scattered throughout the magazine. The pages were divided into three groups of approximately equal size so far as advertising was concerned; these are designated in the table as *early*, *middle*, or *late*. The results are given separately for colored pages and for black-and-white pages. With the colored pages the first and last groups are appreciably superior. With the black-and-white pages, however, the results are equivocal and there is no definite indication of primacy or recency.

Still other figures are available from the judgment of an experienced advertising man.² Goode lists a number of magazine positions with what he considers their approximate value in terms of the full black-white page. He does not specify whether he is dealing with flats or standards, but presumably his judgment reflects the former to a considerable extent because of their greater frequency. His data show the usual superiority of the conventional preferred position, and also give 50 per cent additional value to four or five pages preceding the back cover and following the reading material. These last figures suggest the gradual slope in the curve shown in Figure 3, which indicates that the effect of primacy or

¹ Hotchkiss, G. B., and Franken, R. B. *Attention Value of Advertisement*. Bulletin, Graduate School of Business Administration, New York University, 1920.

² Goode, K. *Manual of Modern Advertising*, p. 284.

recency was not abrupt but produced a gradual loss of the effect when going toward the center of the medium.

Control of Other Variables. One other experiment should be described, particularly as illustrating a method of analysis which would warrant further study.¹ The experiment was conventional in that persons who had read a certain issue of the *Post* were given a recognition test for all the advertisements therein. They graded their recognition in three degrees of certainty and these were weighted into a total score. The unique feature in this study was conversion of the score for a given advertisement into terms of the average score for other advertisements which were similar to it in other variables such as size and color. For example, an average score was obtained for colored full-page advertisements on the left page with men as subjects. Then, in evaluating an inside cover advertisement which was colored and on the left page, with male subjects, its score would be taken as a deviation from the above average. In this way each particular advertisement was ultimately evaluated with reference to the general trend for other advertisements which were similar to it in the respects just mentioned.

A few of these deviations are given in the last columns of the table. It was not feasible to recast them into terms comparable with the other columns. It is apparent, however, that some of the supposedly preferred positions do not show any distinct advantage when the other variables are held constant. The averages against which the preferred pages were evaluated appeared, in some cases, rather peculiar, with the black and white sometimes superior to the colored advertisements and with many of these basic averages much larger for men than for women. The study does indicate, however, that it would be desirable to analyze other data in much the same fashion instead of throwing all the advertisements into one average as a basis on which to evaluate the individual advertisements.

Advertising Rates. Publishers are aware of this apparent superiority of end positions and make allowance by higher rates. A few of these are appended in the last column of the table for a large current magazine and are reduced to terms of the cost of a single full page. The back cover has a high rate because of the fact mentioned earlier that while it is lying on the table a person may see the cover even when he is not reading the magazine at all.

¹ Ferguson, L. W. "Preferred Positions of Advertisements in the *Saturday Evening Post*," *Journal of Applied Psychology*, 1934, 18, 749-750.

The center spread secures a higher rate than an ordinary double-page spread because the wire staples make the magazine tend to break open at that particular point when one holds it lightly in the hands or starts to open it on the table. The publishers, however, seldom make a differentiation of prices when going farther into the medium, and the experimental results indicate that a number of pages near the end or even toward the beginning of an advertising section have a somewhat superior value to those in the middle portion.

FLATS AND STANDARDS

The method of making up the magazine should be discussed in connection with psychological aspects of location of advertising. Magazines fall into two general types, usually designated "flats" and "standards." The former, as the name implies, lie flat on the table, and are further characterized by the fact that the advertising is usually mixed with the reading matter. The various stories and articles are continued on subsequent pages of the magazine, and the advertising is run along with these continuations. In the standard magazine, on the other hand, the advertising is usually segregated into sections at the beginning and the end, while the stories and other material occur in the body of the magazine. These terms originated in connection with actual position of the magazine when lying on the table, but are now used primarily to designate whether the advertising is segregated. It is the latter aspect that especially interests the psychologist.

Argument for Flats. The usual argument on the part of the publisher of the flat magazine is that the reader turns to page 76 in order to finish the story and therefore sees the adjacent advertisement. The assumption is made that if the reader looks at a particular page, he will perceive the advertising which occurs on that page. This assumption must be considered. Getting the attention on a page and getting the eyes on a page are two different tasks. Everyone is familiar with the fact that it is possible to look at something without perceiving it at all. It is a common occurrence to look directly at an acquaintance but nevertheless ignore him because the attention is directed elsewhere. It is possible likewise to look at one part of a page without noticing the rest of the page.

waiting for a train or in some similar situation. He was told that he would subsequently be questioned about some items in the magazine. Immediately after his period of inspection, he was given recall and recognition tests for the advertisements. Some questions as to the stories and articles were included as a blind, but they were not analyzed in the results. Each subject performed one standard and one flat experiment. The figures in the main part of the table give the percentage of the advertisements of a particular sort which were recalled by the subjects. For instance, in Series I with a standard make-up, 18 per cent of the advertisements were recalled, likewise 17 per cent of the flat. The figures in the fourth column and likewise in the seventh give the percentage of the time that the standard performed by a given subject proved superior to the flat. The results at the left are for the recall method, and at the right for the recognition method. The bottom row of the table, in which both groups of subjects are averaged together, shows practically no difference between flat and standard in the percentage recalled or in the percentage recognized. There is a slight indication that more subjects were individually superior on the standard in recall, but in recognition this trend is reversed. The results on the whole are negative. The point that is of interest in the present connection is that no outstanding tendency appeared for the flat to be superior to the standard. The results, however, did not corroborate Münsterberg's in showing an actual superiority of the standard arrangement. Divergence in the results may be due to the possibly greater interest aroused by Münsterberg's non-advertising material. He employed jokes and cartoons, whereas in the present study stories without illustrations were used.

The subjects in another experiment¹ were told to read a certain article in the *Saturday Evening Post* and to look through the rest of the magazine without reading other articles or stories. They were then given a recognition test for advertisements in that issue. Eighty-two per cent of the advertisements adjacent to the various pages of the assigned article were recognized, as against 60 per cent of all the other advertisements. A more detailed analysis revealed that this trend held for advertisements that included pictures of people, advertisements with mixed pictures, and advertisements with pictures of commodities only. The difference was of un-

¹ Kellogg, W. N. "The Influence of Reading Matter on the Effectiveness of Adjacent Advertising," *Journal of Applied Psychology*, 1932, 16, 49-58.

doubted statistical significance in the first of these (critical ratio over 6.0), and in the others possibly so (ratio about 2.4). Incidentally, 25 per cent of the advertisements which were not in the magazine at all were erroneously "recognized." The results are not conclusive on the main issue. The intrinsic attention value of the crucial advertisements next the story was not known, and the interest or lack of interest of the one story may not be typical. The results suggest that an advertisement near a story that is read under definite instructions gets more attention than advertisements adjacent to stories that are merely scanned. They do not show the comparative value of advertisements scanned in a separate section when the reader is not concerned with stories at all.

Reading Habits. Further evidence is furnished by the study mentioned previously¹ of reading habits in libraries, waiting rooms, and so forth. The unfortunate aspect of the results was that the majority of the persons observed were reading flats, doubtless reflecting the greater frequency of such magazines in the places where the observations were made. The data include 660 observations of persons reading flats and only 66 reading standards.

The results are summarized in Table 29. The entries represent

TABLE 29. READING HABITS IN FLATS AND STANDARDS*

	Flats	Standards	Difference ÷ Standard Deviation
Advertisements . . .	36	18	3.5
Editorial	48	59	
Pictures	16	23	

* Stanton.

the percentage of the readers of the medium in question who were looking at the material indicated at the time of observation. The percentage looking at advertisements in the flat was twice as great as that looking at advertisements in the standard, and the difference between 36 per cent and 18 per cent is a real one, as indicated by the critical ratio in the last column. The corresponding differences for editorial material and for pictures are not significant. Some readers at least do look through a standard advertising section, although more of them look at the advertisements in the flat. These results do not afford a final solution of the matter. In the

¹ Stanton, F. N. "A Study of Magazine Reading Habits."

flat it is impossible to determine whether the person is looking at the advertisement because he was reading the adjacent story previously or whether he had been scanning the pages idly. Another factor may be involved in the present results, in that many of the subjects were in medical offices or other places where they were obviously killing time and under those circumstances would wish to read something light. The standard make-up is inclined to look "booky" and scare away a reader who does not want anything serious, whereas the average flat make-up appears lighter and often has a more striking cover which would attract the casual reader. It is also possible that the readers in the present study were of a little higher intelligence than readers in general. The problem is obviously complicated.

The various bits of evidence cited would suggest that there is a real difference between the attitude toward an advertisement in the flat and in the standard. It is not merely a question of getting the reader's eyes on a page but of securing his attention. If he is in an exciting part of a story and then turns to page 89 just as the precipice looms ahead or as the police enter the night club, he is not particularly concerned about the advertisement of the tooth paste or the soap alongside the dénouement. On the other hand, if he is scanning an advertising section his attitude is distinctly favorable. There is no distraction from editorial material, and advertisements that have a real intrinsic attention value will impress him. In technical terminology, his attention is better "accommodated" for the advertising material just as the sprinter is better accommodated for the gun when the starter says, "Get set." The unsolved part of the problem is the probability of a prospect's turning to the standard section, in comparison with the probability of his seeing the particular advertisement in the flat make-up with an attitude that is favorable. Results indicate that more people look at advertisements in the flat, but the data do not reveal whether they perceive them. Even if the reader deliberately examines the advertisement in the flat, the question still remains as to whether his attitude is a mixture of interest in advertising, bits of stories, cartoons, pictures, and jokes, or is more strictly an advertising interest, as it would be in the standard. A conclusive answer to the question is not possible on the basis of existing data. The psychologist, however, is sensitive to the importance of interests and attitudes in this whole matter of controlling the prospect's attention. It would seem that the

conventional argument on the part of the publisher of the flat should be tempered somewhat in the light of psychological principles.

There is one possibility in the flat make-up in which this objection regarding the reader's attitude does not prevail. This possibility involves an advertisement which is related to the adjacent reading matter, so that the conflict of attitudes does not arise. An article about styles is continued on a certain page, while alongside of the continuation is an advertisement of dress fabrics. The reader is interested at that particular moment in questions of dress, and thus the advertising does not strike a discordant note. In fact, its value may even be enhanced by the interest of the reader at the time. Or a column of a biographical account of a man who started at the age of fourteen with five dollars, invested it wisely, and became a corporation president is flanked by investment advertisements. The principle is similar to one suggested earlier in connection with adapting the copy to the reader's interest. It was noted in that connection that advertising alongside a portion of the magazine in which the reader was interested might well be adjusted to that interest by the wording of the copy or even by advertising an appropriate commodity (p. 139).

Special Make-Up. An effort to harmonize the advertisements with the editorial material near-by is seen in the magazine which is divided into three different sections dealing with fiction, home-making, and style and beauty. The advertising may thus be located near related editorial material. A study was made by Starch² of the "visibility" of the advertising in *McCall's Magazine*. The survey was based on interviews as to what the person had seen in the medium. With the old make-up of the magazine 34 per cent of the advertisements had a visibility cost of less than half of one cent per reader. Under the new make-up 62 per cent were below this deadline. Analyzing the data from another standpoint, the cost of having an advertisement seen on the new basis was 69 per cent of what it was on the old, and the cost of having it "read some" was 81 per cent. The largest comparative improvement was obtained for the half-page black-and-white advertisements and for the full page in color.

Readers vary in their reactions toward this whole question. Some find it a distinct annoyance to turn to later pages and con-

² Abstract in mimeographed bulletin of National Association of Teachers of Marketing and Advertising, 1935.

tinue the story; whereas others take it as a matter of course. There have been suggestions of sponsorship of stories somewhat analogous to sponsorship of radio programs.¹ Stories might be published with the caption at the outset: "This story is published under the auspices of —, whose advertisement appears on the opposite page. Read it first. It will help you appreciate the story." On this basis it is suggested that the magazines might be sold for even less than their present price, thus compensating the reader for looking at the credit line. If this practice is ever adopted, it will probably involve much the same problem as the sponsored radio program. The reader may overlook the credit line in much the same fashion that the listener may throw the switch during the advertising that follows a particular broadcast.

Radio. The preceding considerations regarding the location of advertising in the vicinity of related editorial material suggest analogous problems in radio. The prospect's attitude while listening to the entertainment feature of the program may have a definite bearing on his attitude and attention toward the commercial announcement that follows. It is possible that the two may evoke entirely contradictory attitudes. A dance orchestra followed by an advertisement for cigarettes or sparkling beverages would involve no great shift in interest because the listeners are set for pleasure, relaxation, and gaiety. Announcements regarding domestic products and morning broadcasts to the housewives are compatible. But an advertisement for toothpaste or chewing gum after a beautiful aria or after a symphony is a trifle inappropriate, not merely from intellectual and esthetic standpoints, but even from the advertising standpoint. The listener in the depths of musical enjoyment is so little interested in trivialities that they have little claim on his attention and may even arouse a discordant attitude and hostility toward the product. Another aspect of the problem will be discussed later, viz., the imagery or mental pictures called up by the advertisement and the program and the way the two fit together (Chapter XVI).

Thus, whether the advertising is visual or auditory, it is important to consider the whole setting in which it is presented. The adjacent printed pages or the adjacent radio program set up certain interests and attitudes on the part of the prospect. If the adver-

¹ Cf. Powers, M. K. "How Far Can Commercial Sponsorship be Extended?" *Printers' Ink*, April 30, 1931, 155, p. 49.

tisement fits into this general pattern of interest, well and good, but if it arouses contradictory impulses the reader or listener may lose interest and even develop an antagonism toward the product. The prospect's attitude at the moment he is confronted by the advertisement is an important part of his reaction to it.

SIZE OF MEDIUM

In selecting a medium for an advertisement another consideration is the size of that medium. It would seem probable that if the magazine is too large and contains too many advertisements, the value of a given advertisement will decrease accordingly. Experimental data corroborate this conclusion. In one instance² drawings of familiar objects in ink were made on pages which were grouped together in dummies of 25, 50, and 100 pages. The subject turned the pages with a two-second time limit on each, and then recalled as many items as he could in 2, 4, or 8 minutes for the three sizes.

The results of this and other experiments are summarized in Table 30. The number of pages in each case was in the ratio of

TABLE 30
EFFECT OF SIZE OF MEDIUM ON RECALL

Page Ratio	Percentage Recalled			Ratios		
	Ink Drawing	Advertisements	Strong's Advertisements	Ink Drawing	Advertisements	Strong's Advertisements
1.00	34	55	73	100		100
2.00	26	40	57	77	75	78
4.00		29	50	65	53	68

1, 2, and 4. In the second column are the percentages recalled for the drawings in dummies of the three corresponding sizes. In a second experiment in the same study actual advertisements made up into a dummy were employed, using 20, 40, and 80 pages, which maintained the same ratio so that the results are comparable to the preceding. The subjects were allowed a time limit for the whole dummy which would average three seconds per advertisement.

² Burchard, T. C., and Warden, C. J. "The Effect of the Size of the Advertising Section upon the Value of Individual Advertisements in It," *Journal of Applied Psychology*, 1926, 10, 162-170.

and be more interested in the upper parts of objects also plays a rôle. When the pages are bound so that the magazine does not break wide open, the upper portion of the page is still the more effective, but it is the outside edge of the page rather than the left side which is superior.

Right pages in general are superior to left, as shown by experiments with dummy magazines and by tabulation of coupon returns. The result may be attributed to habits of manipulating the magazine. These habits have been studied by observing persons reading in libraries, waiting rooms, etc. When one is looking at advertisements or pictures rather than reading editorial material he is more often found to be looking at the right page, and he holds the right page broadside more frequently than he does the left.

Different pages in a magazine vary in their effectiveness. In a standard make-up the initial and final portions of each advertising section are superior to the intermediate pages. It is not merely the first and last page of a section which have this superiority, but several of the pages near the beginning or end derive value from these factors of primacy or recency. Studies of recall for advertisements in flat magazines support these findings, at least in regard to the conventional preferred positions for which higher rates are charged by the publishers.

The standard and flat make-up of magazines differ in their effect on the reader's attention. It is argued that in the flat the reader turns to a subsequent page to finish the story and therefore sees the adjacent advertisements. Experimental results weaken the force of this argument and reveal that merely getting the eyes on a certain page does not ensure attention to the advertisements on that page. Readers of flats are actually observed to be looking at pages containing advertisements more often than are readers of standards. However, their interest in the adjacent story may detract from their attitude toward the advertisement, whereas in a standard, if they do look at the advertising pages, their attention is accommodated for the advertising, and they will be more receptive. It is feasible sometimes in the flat make-up to place the advertisement adjacent to material which is related in interest so that a conflict in attitude is absent. It is even possible to subdivide the magazine into several sections differing in editorial content and to place the advertising in the section which is most similar to it.

Similar problems of attitude arise in radio advertising. If the

commercial announcement produces an attitude incompatible with the preceding program, inadequate attention may be secured and even downright hostility aroused.

The attention value of an advertisement decreases somewhat in proportion to the number of other advertisements in the magazine. The value, however, does not decrease so rapidly as the number of competing advertisements increases.

paper to show that it produced no stain. As a climax, he produced a glass chamber containing live flies which died shortly after injection of some spray, thus convincing the customer of the lethal effect of the product. Another stunt involves a literal display of the product such as an awning sticking out from a poster board which advertises awnings, or a card on the street car about some lotion for "sand-paper chin" with an actual piece of sand-paper pasted on the picture. One point regarding stunts as attention devices deserves emphasis: if the stunt proves something concerning the commodity, so much the better. The stream of water falling on the raincoat without wetting through not only attracts attention because it is unusual to see water dripping in store windows, but it is valuable also in that it emphasizes the qualities of the raincoat.

CLEVER PHRASEOLOGY

Attention may be secured by clever expressions used in the copy, and to some extent this involves the novelty factor. The following is an excerpt from a metropolitan department store advertisement: "To the 343 babies who will be born in New York today: Of course you are going to be born. What chance has a baby against a full-grown statistic? Well, here you are. . . ." The copy goes on to describe the things that babies can procure at this particular store. Or again, the suggestion "If dogs made out their own Christmas lists," with further details as to things appropriate to buy for the dog on Christmas. The following bits of copy from a furniture advertisement derive their value from a clever flippancy which is somewhat novel: "\$37.50 Provençal oak dressers. Two only. And why did we buy them? Take a look at them; if you can stand them, you can have one or both for \$21.50 each." "\$11.75 mahogany-finished fernery. We liked it once, but it's an eyesore to us now. You take it and look at it for \$5.95."

A wholesale house dramatized the forthcoming salesman's call by a mailed announcement. The notice was set up like the advertisement for the return of a criminal, in large type, with the lead, "Do you know this man?" and indicating that there was a reward for his apprehension in terms of increased profits. Pictures of the actual salesman in convict style were included, together with personal information and instructions to notify the police department that he was not a criminal. The layout was quite deceptive, and while

some readers might be disgruntled at being fooled by it, others might rather anticipate the advent of this salesman and carry out the spirit of the thing in their initial contact with him.

Another personal mail device is to send a prospect what appears to be a clipping from a newspaper in which his own name is featured. It may look like a piece hastily torn from a local paper and the headline in the upper corner states — "John Doe (actual name of recipient) sure to find savings in new Never-Knock Gas." The remainder of the news item may be trivial, and an editor's note explains that this is the only clipping in which the recipient's name appears. For a reader who seldom sees his own name in the headlines the attention value is high.

The same motif is employed in the picture of two bellhops at a metropolitan hotel. In the balloons which report their conversation one says, "Who was it Mr. Hitz told us to be watching for?" and the other replies, "Mr. So and So" — naming the recipient of this particular advertisement. The reader is momentarily impressed by the fact that the two bellboys are talking about him personally.

A still more unusual phraseology is the following: "Halay Lembern Mwee Awayah kiung." This headline actually is the way "Hello London, New York calling" sounds in scrambled speech, and prefaced an advertisement for this transatlantic radio service.

EXAGGERATION OR ABSURDITY

Some people may become interested in a thing because it is obviously absurd or exaggerated. A case was cited earlier of the store which advertised a thousand-dollar Easter hat, and had to call out the police to direct traffic into the store to view that hat. A jewelry concern advertised the largest blue diamond in the world for \$300,000, not particularly expecting to sell it but rather to call attention to the firm. A small town in South Dakota needed rain. The publisher of a paper induced a number of merchants to pay \$2.50 apiece toward an advertisement which featured the fact that rain was wanted at any price and they preferred general rain. This offer was made by the "following firms," and it was further agreed that if no rain came within a week, the publisher would stand the expense of the advertisement rather than the merchants who put in the \$2.50. As a matter of fact the publisher lost by about six hours, but much attention was attracted to the newspaper and to the list of mer-

chants who contributed to this "rain fund."¹ The same principle in a more rational setting is that used by the Atlanta tailor who issued rain checks and gave another press free if it rained within twenty-four hours. A manufacturer of expensive equipment for bridge and other games ran copy starting off with, "Don't hit her; remember you are a gentleman," and discussing family arguments arising out of these particular games.

It is possible to carry absurdity so far that the prospect will miss the real selling point even though his attention is attracted momentarily. Often a series of advertisements is centered around some rather absurd "if," and perhaps the "if" is too large. It is suggested that "If your floor were of glass, you'd fix up the cellar." Obviously the new heater with nickel-plated valves is the thing which should be installed, but the glass floor is too remote a contingency. "If you wore your garters around your neck, you'd change them every day," but we do not wear them thus, and hence the problem does not arise. Thus it is inadvisable to go so far in the direction of absurdity that it is actually irrelevant and has no relation to the product.

TIE-UP WITH TIMELY EVENTS

It is sometimes possible to tie up an advertisement or a window display with some current event, such as the presentation of a particular moving picture in the vicinity. When two well-known comedians were billed at a theater, large pictures of them appeared in a near-by store window wearing a certain type of pajamas. The passers-by noticed these individuals because of their temporary interest in the film and were perhaps attracted to the pajamas. Some value also may have accrued to the theater by calling additional attention to these comedians. An effective tie-up may occur in connection with prospective radio broadcasts. Programs sponsored by the makers of various drugs have been announced by posters in drugstore windows. A radio in the stores likewise tuned in these particular programs. Increases in sales in a typical group of stores were as follows: Squibb's Cod Liver Oil 30 per cent, Vapex 20 per cent, Maltone 20 per cent, Enos 15 per cent. Another instance of timeliness is the convention of moths arranged by a furrier at the time at which furs should be put in cold storage. One such window

¹ Anon. "Missed by Six Hours," *Advertising and Selling*, September 16, 1931, 17, 40.

display featured the moths' convention with discussions of means for combating their old enemy, cold storage. The menu consisted of furs which were spread out upon the table, and a vacant chair with a wreath was dedicated to a departed brother who froze to death in the cold storage vault in question.

TYPOGRAPHY

Novel devices are often possible in the field of typography. The text of an advertisement may be set solid in such a fashion that the actual geometrical shape of the type resembles a familiar object which accords with the main selling point. A financial advertisement carried the key-note "confidence" in heavy type. The remaining type in smaller point was arranged in the form of a pyramid, resting on the word "confidence" as a base. This typographical arrangement caught the attention and likewise aroused some association of confidence by the pyramidal shape. Another advertisement in the same series employed the keynote "responsibility" with the type set above this word in the shape of the keystone of an arch. Still another featured "protection" and the type was set in the shape of a shield. The number of inquiries received from this particular campaign was very gratifying. Another concern constructed the skirt on a woman's figure from type with lines of varying lengths.

Novelty may be introduced by so-called "gestures" in the typography. If the headline features the word "reduced," it may be printed with the initial letter large, the next a little smaller, etc., so that the size of each succeeding letter is literally reduced. In the headline "You do not need to be a juggler to open this door" the word "juggler" has the type juggled into an irregular pattern. The word "bulges" in the heading may be reinforced by placing the letters so that the word bulges at the middle.

Possibly under this topic should be classified the folders made of a long strip folded over and over many times so that one phrase or clause becomes visible on each unfolding. The successive statements in one instance ran as follows: "Don't open till you get home — everybody gather 'round — don't get excited — it won't bite — keep on turning — one good turn deserves another — let brother have a look — let sister look too — the whole family ought to look — hear and enjoy — the sensational musical treat of the season —"

then the announcement of what was actually advertised. Most persons, the first time they encounter such a folder, will stay with it to the bitter end.

DECOYS

An interesting novelty device was used in connection with the experiment already cited in which a display was placed in a vacant store window and the number of passers-by who came up to the window counted. It was arranged that one or more decoys should stand in front of the window looking at the display in order to see if they would attract more persons than approached the window under normal conditions. Data were collected with a man for a decoy, with a woman, and with both. The results are summarized in Table 32. With no decoys the percentage stopping averaged about 7.

TABLE 32. EFFECT OF DECOYS *

	Percentage of Men Stopping	Percentage of Women Stopping	Percentage of Total Stopping
No decoys.....	8	6	7
Female decoy.....	9	8	8
Male decoy.....	16	7	13
Both decoys.....	34	18	26

* Nixon.

When the woman was the decoy the percentage went up but probably not significantly so. When the man was the decoy there was an appreciable increase in the percentage of men who stopped, although there was no increase in the percentage of women. It is conceivable that the women hesitated to come up while a man was standing there because of some possible embarrassment. With both decoys a distinct increase is noted in the proportion who stopped, and this was more characteristic of the male pedestrians.¹ Before drawing final conclusions it would be necessary to gather data with a variety of decoys in order to determine the effect of general appearance, age, stature, and dress. The experiment at least indicated that the scheme has some possibilities. In addition to the element of nov-

¹ Nixon, H. K. *An Investigation of Attention to Advertisements*, p. 21 ff. New York, Columbia University Press, 1920.

elty, this device arouses the imitative tendency. It suggests the practice in the early days of the dime museum, of hiring persons, providing them with a roll of tickets, and instructing them to enter the front door and go out the rear exit repeatedly, thereby creating the impression that a great many people were patronizing the museum. Numerous passers-by naturally joined the crowd.

GENERAL ASPECTS OF NOVELTY

Experimental data as to the general effect of novelty on attention are almost totally lacking. A little incidental information was obtained in an experiment previously described (p. 17) in which the eye movements were photographed while the subject was observing materials on a screen. Some of the materials were designed to introduce the novelty factor by having capital letters at one side of the screen and on the other side colored or black geometrical forms and digits. The novelty produced in this way presumably was not very great. However, in a ten-second period, 60 per cent of the time on the average was devoted to fixating the novel side as against 40 per cent for the normal side. The results favor the novelty factor, but the difference is of rather doubtful statistical significance.

It is more difficult in these later years to arouse the public's curiosity by a novel device than it was in an earlier time. People are growing blasé about advertising, and an item that would stop them originally will not do so now. Time was when everybody looked at every airplane which went overhead, but now the quieter ones are ignored. Similarly, every unusual advertising device caught the attention at one time, but after having had some experience with such devices the prospects do not pay attention to them as they originally did. Consequently, the advertiser who is utilizing novelty is more put to it in order to obtain a device that really is novel to the average prospect. Once the novelty is achieved, however, its attention value is presumably as good as ever.

Another principle which has already been discussed in connection with curiosity deserves repetition at this point. It is inadvisable to arouse curiosity to a high degree and then allow a letdown. The subsequent disappointment probably does more harm than the copy does good. One instance of this sort of mistake may be cited. A moving picture organization in advertising a forthcoming attraction distributed small cards on which, in rather large type, were the

words "Free ticket. Admit one." On reading more closely and noting the finer print between the lines, one discovered that "This is not a free ticket, but you will have to admit one thing, that — [giving the name of the film] is the most remarkable film of the season." While many persons might be caught by the words "Free ticket" and "Admit one," when they examined the copy more closely and found that it was not a free ticket, the loss of good will would offset the possible gain in calling attention to this forthcoming picture.

NATURE OF THE COMIC

Advertisers have been somewhat loathe to make a widespread use of the comic as an attention device. One large agency is so impressed by the uncertainty of the comic that they have a standing rule to the effect that humor will not be employed in copy for their clients unless it is approved by the president of the agency. Another metropolitan advertising man, however, states that in his agency there is not an account for which the comic has not been considered at some time.

No universal agreement is found among philosophers or psychologists as to the fundamental nature of the comic.¹ Bergson regards it as something which derives its characteristic from being stiff, rigid, and automatic. When a person falls downstairs in complete conformity to mechanical laws just as would a trunk or a piece of furniture, he becomes humorous. Freud emphasizes the freedom from social restraint arising from the comic as a mechanism whereby one enjoys release from his inhibitions. Suppressed complexes often secure an outlet in this way. Others regard the mechanism as the recognition of one's own good sense or sanity, so that it is really a matter of his superiority to the object of his laughter. Still others attribute humor mainly to the perception of the incongruity in a situation.

CLASSIFICATION OF HUMOR

Numerous efforts have been made to classify jokes or humor or the causes of laughter. A few of these may be enumerated for what they are worth. One classification includes the following: absurdity, slapstick, satire, whimsy. Another involves calamity, the pun, the

¹ Cf. Diserens, C. M. "Recent Theories of Laughter," *Psychological Bulletin*, 1926, 23, 247-255. Also, Perl, R. E. "A Review of Experiments on Humor," *Ibid.*, 1933, 30, 752-763.

play on words, and the caricature. Still another is based on the subject of the joke, such as an animal, religion, or mother-in-law. A radio script writer classifies jokes as insults, plays on words, dumb jokes, anatomical, sex, children, and domestic. A classification which is of interest in connection with the effect of repetition is subjective versus objective comic. In the former the joke is "on" the reader. Still another author mentions such classes as quantity, incongruity, unexpected, truth, superiority, repression, ridiculous.

Various studies have been made as to the types of humor which are the most amusing. A few such studies may be mentioned, although there is no profound agreement among them. Hester¹ had college women tell the funniest things they knew and in these anthologies naïve jokes ranked highest. Kambouropoulou² had her subjects keep laughter diaries, and the most frequent mention was for the mental inferiority of another person. Next in order came the incongruity of a situation, followed by wit directed at another person's mental inferiority, then incongruity in ideas. Lange³ studied laughter responses to dramatic situations, and the order of frequency was the same as that just cited except that the first two items were interchanged.

INDIVIDUAL DIFFERENCES

Of more significance than any general trend is the wide range of individual differences in reaction to the comic. All manner of situations have been reported as amusing to some people. Neither intelligence nor personality type seems to be closely connected with the general appreciation of humor. Some relations have been found, however, between personality types and reaction to certain kinds of humor. Extroverts, for example, prefer jokes based on superiority or the exposure of some unrevealed thought, while the introvert seems to prefer those having to do with repressions, such as fear or sex. A series of aggressive or derisive jokes were evaluated in comparison with control jokes by college students. The degree of laughter was noted as well as a subjective appraisal. Personality tests were also given to the subjects. The results indicated that the enjoyment of the derisive type of humor was associated with the

¹ Hester, M. S. *Variations in the Sense of Humor According to Age and Mental Condition*, pp. 1-53. Master's Thesis, Columbia University, 1924.

² Kambouropoulou, P. "Individual Differences in the Sense of Humor and Their Relation to Temperamental Differences," *Archives of Psychology*, 1931, 121, 1-83.

³ Lange, F. E. *A Statistical Analysis of Laughter*, pp. 1-32. Master's Thesis, Columbia University, 1927.

possession of egocentric, individualistic, aggressive, and "world derogatory" sentiments.¹ Some differences as related to age have been found. Girls between seven and ten years, when asked to describe the funniest thing they knew, gave many situations involving physical calamity of some sort. The same type was also characteristic of pre-school children, but jokes with the derisive element ranked even higher. With college women, however, the naïve jokes ranked higher than those involving the mental inferiority of another person.

SOCIAL FACILITATION

An investigation was made of the conditions under which the joke is received as affecting its quality.² Three lists of jokes which had been statistically equated in funniness were employed. These were presented to students and graded on a five-point scale. One list was in a mimeographed blank and rated at home privately; another list was read to the subjects as a group; and a third list was presented to them individually by lantern slides. The general result was that those jokes rated privately seemed the least amusing. The visual were appreciably superior to those rated privately and also somewhat superior to those presented verbally. Social facilitation appears to have relatively more influence in raising the scores of the poor jokes than in raising the scores of the good ones. The advertiser should employ humor which will stand upon its own merit without the necessity of social facilitation.

EFFECT OF REPETITION

The use of the comic in advertising necessitates a consideration of the effect of repetition. When an advertisement is presented repeatedly in the same medium or simultaneously in different media, many of the prospects will see it on several occasions. If humor is the attention device employed, the question arises as to the effect of repetition upon humor. A study was made of audiences at a theater during a humorous performance and laughter at each feature was timed with a stop watch. When an encore was given to a humorous song the laughter was almost exactly half as long as it had been at

¹ Murray, H. A., Jr. "The Psychology of Humor," *Journal of Abnormal and Social Psychology*, 1934, 29, 66-81.

² Perl, R. E. "The Influence of Social Factors Upon the Appreciation of Humor," *American Journal of Psychology*, 1933, 45, 308-312.

the first presentation of the song.¹ Everyday observation also indicates that a joke is less amusing the second time it is heard, but it is also apparent that some jokes lose their flavor more rapidly than others. The advertiser is interested in ascertaining what kind of jokes maintain their humorous nature most effectively with repetition.

An experiment on this particular problem may be described.² The subjects were given a series of thirty-nine jokes, which they sorted into ten piles according to their funniness, and the order of merit was computed by averaging the different subjects together. Each subject repeated this procedure on four additional occasions a week apart. The humorous character of all the jokes decreased with repetition, as was to be expected, but the extent of this decrease was not uniform for all the material. The most profitable classification was on the basis of subjective versus objective comic. In the former the joke is on the reader. A pun and a play on words are typical of the subjective comic. The reader is momentarily deceived by one meaning of the word and then discovers the other. In the objective comic, on the other hand, the joke is on somebody else. The person is in a predicament with a leaky garden hose or with cannibals or merely makes a stupid mistake. Hollingworth found that the subjective jokes lost their flavor comparatively more rapidly than did the objective. This result coincides with everyday experience. A characteristic groan usually arises when a pun is offered a second time. A joke told on oneself soon becomes annoying. On the other hand, people will frequently sit through a second presentation of a moving-picture comedy in which the humorous element is objective in character. Therefore, if the advertiser is going to use humor in his copy, it would be advisable to employ the objective type rather than the subjective unless there is some very good reason for doing otherwise.

DANGERS IN THE COMIC

Allusion was made earlier to the fact that the use of humor in advertising has certain inherent dangers and that some advertisers or agencies have been loath to employ it. Some of these possible

¹ Lange, F. E. *A Statistical Analysis of Laughter*.

² Hollingworth, H. L. "Experimental Studies of Judgment of the Comic," *Psychological Review* 1911, 18, 132-136.

dangers may now be enumerated. It is not intended to give the impression that these difficulties are insurmountable and that the comic should never be used, but there is nevertheless a certain gamble in the process.

For one thing, the comic is likely to draw attention to itself rather than to the product, particularly if the humor is irrelevant to the commodity and is not tied up with it closely. It will be noted in a subsequent chapter that the relevancy of a picture is an important consideration. While the ubiquitous pretty girl may attract attention to the advertisement, if the picture is irrelevant it may not be successful in selling barbed wire or tractors. It is important to have the picture tied in with the product so that the reader will remember them both rather than merely recall the picture. In the same way, if a humorous device is employed in order to attract attention to the advertisement, that device should lead naturally to a consideration of the product and to some definite selling point. A supposedly comic character was used some years ago in promoting a breakfast cereal. His antics were effective from the standpoint of catching attention and his optimism was supposed to have been derived from the breakfast food. However, the tie-up was not very patent, and many readers remembered the character and not the cereal. A campaign for brass pipe, on the other hand, was centered around the predicaments of the family whose plumbing developed embarrassing leaks. The predicaments were amusing to the reader but also tied in clearly with the solution of the predicament and left brass pipe in the memory of the prospects.

Another danger is that levity may suggest that the advertiser is sidestepping the more serious business of explaining the merits of his product. In everyday life this technique is often used to distract a person from a main issue. A lawyer may turn a cross-examination into a bit of comedy in order to distract attention from previous damaging testimony. A person losing an argument may sometimes dodge the issue by resorting to humor. In recent years the public has become somewhat advertising-conscious, and is inclined to be skeptical of procedures which might seem to be an avoidance of the main issue. If the advertisement goes beyond a mere humorous display and tells its story in a legitimate fashion, well and good, but where there is little in the copy except the joke this danger may be serious.

HISTORICAL TRENDS

A bit of indirect evidence regarding the comic may be obtained by the historical method. In a study of *Collier's* and *Harper's* over a period from 1902 to 1919 humor never appeared in more than 7 per cent of the advertisements in the annual sample. A survey of the *Literary Digest* in 1932 indicated about 3 per cent of the advertisements in this class. A recent study of the *Saturday Evening Post* and *Good Housekeeping* revealed that the proportion was less than 5 per cent. The presumption is either that most advertisers have been chary about using the comic itself or that those who have tried it have found it unsuccessful and have desisted. On the other hand, a few concerns have used humor consistently through the years. Cream of Wheat and the Gold Dust Twins are two mildly comic presentations which have stood the test of time. It is probable that, when properly handled, humor in advertising may be effective. Psychological experiments do not contribute much information which would enable the advertiser to pick a type of comic which would be certain to succeed for his product.

SPECIAL TYPES

Illustrations of humor in present-day advertising will not be given because of the effect of repetition cited above. However, a few special types deserve consideration. One of these is the use of the so-called comic strip as an advertising medium. The advertiser has turned his attention to this because of the overwhelming popularity of the non-advertising strip. Surveys based on door-to-door interviews as to what portion of the paper people had read or had seen indicated a very high score for the "funnies." In one study it developed that they were read by 68 per cent of the men, 72 per cent of the women, and 99 per cent of the children.¹ Thus, if the public could be induced to read advertising strips with the same fervor with which they read the ordinary ones this medium should have distinct possibilities. Some of the earlier programs set out deliberately to deceive the reader. He began perusing the strip, which started off in the same manner as a genuine one, and then at the end he discovered that he was reading an advertisement. The reaction of most readers was unfavorable, for they realized that they

¹ Karcher, J. Z. "The Serious Side of the Comic Strips," *Printers' Ink*, April 28, 1932, 139, 1 ff.

had been tricked. The ill will aroused in this way would more than counteract the gain resulting from getting a person to read the copy. In the more recent uses of this medium it is obvious from the layout and the larger titles in the vicinity that the strip is an advertisement so that the reader can make a choice as to whether to examine it or not. Although many readers will react negatively, those who do read the copy will peruse it in a favorable attitude. In many cases the attitude toward the ordinary funnies is so habitual that it is difficult to resist anything which smacks of funnies even though it is known at the outset to be an advertisement. Whether this habit will persist, or whether the reader will gradually discriminate between the two types of material, is a moot question. A good feature of these strips is the limitation imposed by putting the copy in the small balloons above the characters. This necessitates making the copy brief and to the point, and thus eliminates some of the unnecessary introductory paragraphs, overcrowding, and prolixity in general.

Serial programs on the radio are related psychologically to the continuity strips in the paper. Some of them derive their humor from caricaturing everyday situations in which the characters manifest common human traits and weaknesses, propensities for "joining," gullibility in seeking something for nothing, and a penchant for innocuous philandering. The advertising, however, is not placed directly in the utterances of the participants but is rather introduced in the script before or after or even during the program. The attitude of the audience in tuning in night after night is analogous to the reader who turns to the funny section daily. The radio serials, likewise, are not all humorous, but have a plot carrying over from one day to another with a climax which will lead the audience to listen to successive programs. There is no danger of arousing unfavorable attitudes because of any possible deception, inasmuch as the listeners know that they are going to hear the program sponsored by some advertiser. The only difficulty on this point has to do with favorable or unfavorable attitudes as related to the length of the announcement, a problem which will be discussed in a subsequent chapter.

SUMMARY

If an advertiser resorts to novelty in order to attract attention he must keep changing the procedure frequently because the novelty

wears off. No general principles for creating novelty can be laid down, for it depends largely on the advertiser's ingenuity with reference to his particular commodity. Some types of novelty may be mentioned merely as suggestive of the possibilities: mechanical devices, such as sky writing or a window display which can be operated by a pedestrian outside; stunts, such as placing a rug on the sidewalk and subsequently cleaning and displaying it; clever phraseology; exaggeration or absurdity, such as a collective advertisement for rain; tie-up with timely events, such as forthcoming movies; unusual typography; decoys standing in front of a window display and thus leading others to stop. It is more difficult to secure a successful novelty device than it was formerly because the public is becoming accustomed to them through repetition and hence less susceptible. It is inadvisable to arouse curiosity to a high degree through a novel feature and then to have a marked letdown which may produce ill will.

The comic as an attention feature is used sparingly today. Numerous classifications of humor have been proposed. No clear-cut trends are found as to the comparative effectiveness of these various classes. Individual differences loom large in this connection, and social facilitation plays a rôle in the appreciation of humor.

Experiments on the effect of repetition of jokes reveal that the subjective variety of humor loses its flavor more rapidly than does the objective. In the former type the joke is on the reader. Inasmuch as the prospect may see the advertising repeatedly, if humor is to be the attention device, the objective type is preferable.

Certain dangers are inherent in the use of humor in advertising. The comic feature if irrelevant to the product may draw attention to itself so that the reader will not remember the product advertised. The levity may suggest that the advertiser is avoiding the serious selling points because of their weakness.

The fact that the incidence of humor in advertising has decreased through the years suggests that, on the whole, it has not been a successful technique. In certain cases, however, it may be profitable, as indicated by the survival of a few familiar comic features.

Special mention should be made of the comic strip as an advertising medium. The practice of reading these strips is very widespread, and a carry-over of interest to the advertising strip is to be expected, at least for the present.

CHAPTER XIII

COLOR

GENERAL VALUE OF COLOR

COLOR has an obvious attention value in many situations quite apart from advertising. A genetic approach would include such factors as the plumage of birds, and the tendency for primitive people to be intrigued by colored beads or vivid calicos. Children pay more attention to colored pictures and toys than they do to uncolored objects. The underlying mechanism is not known, but the fact remains that color has some stimulating value on the individual and is effective in securing his attention.

INCREASED USE OF COLOR

A survey of advertising practice through a period of years reveals a marked increase in the use of color. In one such survey the *American Magazine*, *Collier's*, and *The Ladies' Home Journal* were included, beginning with 1910, and at stated intervals the percentage of the full-page advertisements that were colored was tabulated. The results appear in Table 33. The percentage rises consistently

TABLE 33. PERCENTAGE OF FULL-PAGE ADVERTISEMENTS
THAT WERE COLORED

	American, Collier's, Ladies' Home Journal	Saturday Evening Post
1907.....		5
1910.....	3	
1915.....	13	
1920.....	30	
1922.....		28
1925.....	36	
1930.....	51	68

from 3 per cent in 1910 to 51 per cent in 1930.¹ A similar study of the *Saturday Evening Post* for the years indicated reveals the same tendency, with the percentages increasing from 5 to 68.²

¹ Kitson, H. D. "Color in Advertising," *Journal of Applied Psychology*, 1922, 6, 54-66. Also Kaiserman, J. J. *Historical Trends in Advertising*. M. A. Thesis, Ohio State University, 1932.

² Birren, F. "Color for Use, not Mere Beauty," *Advertising and Selling*, October 1, 1930, 15, 30.

This increased use of color in advertising indicates its effectiveness but raises the question as to how the attention value will be influenced by further increase. If every advertisement in a magazine were colored it is possible that a lone black-and-white advertisement might be superior to any of the colored ones. Some writers believe that if more than 15 to 20 per cent of the advertising space in a magazine is colored the value of color decreases. No experimental evidence is available as to what is this saturation point beyond which color loses its effectiveness, but from a long-time point of view the situation will stabilize itself. When the diminishing returns from excessive use of color become evident to the advertiser its use will decrease, and ultimately become stationary near the theoretical saturation point. The results of the historical method at present merely indicate that color has been successful.

INCREASED RETURNS

The use of color has increased returns from advertising in many specific instances. Through the literature one may find scattered reports of remarkable effects produced by the introduction of color into a particular piece of copy. Starch mentions extreme cases of keyed advertising in color pulling thirty times as much as a black and white advertisement. He also notes that in mail-order catalogues colored pages frequently bring four to six times as many returns as the uncolored pages. A manufacturer of stoves had a model which was a poor seller. By coloring the advertisement for it in the catalogue he converted it into his best seller. A company which markets dress patterns has discovered that when they color some particular model in their circular, they must prepare ten times as many patterns of that model. This does not mean that they sell ten times as many patterns altogether, because they are presumably competing with themselves, but it does indicate that the colored item secures much more attention than the uncolored.

However, another mail-order firm for test purposes printed half of their catalogues in black and white and the other half with colored plates. The catalogues with colors brought about fifteen times as much business as did the black and white. A test with flower catalogues produced a similar result.¹ Profitable increases in orders for clothing and rugs were obtained when the copy in the catalogue was

¹ Goode, K. *Manual of Modern Advertising*, p. 235.

colored, but farm machinery and automobile accessories in the same catalogue did about as well in black and white. A vulcanizing company ran copy in a December number in which they received inquiries at a cost of \$3.68 each. In January they colored their copy and received inquiries at 75 cents. A seed company reports \$9 in sales for their colored pages as contrasted with \$1 for the plants advertised in black and white. Similar cases might be multiplied. It would be an unwarranted assumption, without scrutinizing the original copy, to attribute the results solely to color. Neither is it possible to determine to what extent the results are due to the sheer attention value and to what extent they are produced by the esthetic aspect which leads the reader to observe the advertisement for a longer time. Nevertheless, the increases are of sufficient magnitude to justify the use of color in advertising.

Sales Letters. Further evidence as to the effect of color is found in a study of direct-mail sales letters.¹ They were sent out in lots of one thousand. All the lots had identical text, but they differed in the color of the paper used for letter, or return envelope, and in the presence or absence of cuts. The percentage of replies for some arrangements were as follows:

White paper, no cut, white envelope.	9 per cent
White paper, cut, white envelope.	18 per cent
Yellow paper, cut, blue envelope.	26 per cent
Green paper, cut, blue envelope.	28 per cent
Pink paper, no cut, white envelope.	26 per cent
Pink paper, cut, blue envelope.	48 per cent

The extremes of 18 and 48 per cent for the white letter with cut and pink letter with cut are illuminating. In comparing the white with no cut and the pink with no cut, the figures are 9 and 26. Color in the sales letter obviously serves to get the reader's attention. It operates in that crucial fraction of a second that means the difference between the wire basket and the waste basket.

Persons were interviewed at their doors (Gallup technique), shown copies of current magazines, and, if they had read any of them, requested to indicate for each page whether they had seen it. The attention value of the colored advertisements as indicated by this procedure was 34 per cent superior to the black and white for men and 79 per cent for women.² As in all investigations employing this

¹ White, Percival. *Advertising Research*, p. 553. New York, Appleton, 1927.

² Cf. Blumberg, R., and Rheinstrom, C. "How Advertising Techniques Are Rated by Gallup Survey," *Printers' Ink*, March 24, 1932, 158, 117 ff.

technique the results must be qualified because of the impossibility of controlling the numerous other variables.

In a similar investigation advertisements with the trademark and trade name obliterated were employed. The subject was required to recognize the advertisement as one which he had seen and also to identify it by supplying the trade name or mark. The experiment utilized ten issues of a weekly and four issues of a woman's magazine.¹ The percentage of recognition for a full-color page was 60 per cent, for a black-and-white page 50 per cent, and for a black-and-white half page 35 per cent.

Retail Articles. The effect of color may be seen from a different angle in a minor aspect of retail selling. The increase in the use of color for kitchen utensils was not entirely a matter of fashion, but many of the items were sold because the attention was attracted to the colored objects on display. With most of the lowly types of utensils the colored handles are found to sell more readily. One five-and-ten-cent store had to put the colored utensils away in order to dispose of the plain ones. Another store had to cut the plain ones from 10 cents to 5 in order to unload them. Some stores found that the colored kitchenware merchandise at 10 cents outsold the plain article across the aisle at 5 cents. Even when the colored items were given every disadvantage of display, they still outsold the others.

Inquiries. Other evidence is available in the study by Starch previously referred to, in which he collected inquiries from a large number of advertisers.² He reports an analysis of over 162,000 replies dealing specifically with the color variable, lumping together in one tabulation all the black-and-white advertisements and in another all the colored advertisements. When dealing with such a large number of cases it is probable that many of the extraneous variables cancelled out in the averages. For instance, if one colored advertisement had a striking headline, it is probable that some other uncolored advertisement would likewise have a good headline. Starch found that the replies per 100,000 circulation for the black and white were 142 and for the colored 232. Reduced to a percentage, the colored advertisements obtained 57 per cent more replies on the average than did the black and white. In a later study involving about two thirds additional inquiries the corresponding percentage was 55.

¹ Bolin, R. "Strategy," *Printers' Ink*, May 9, 1935, 171, 25-28.

² Starch, D. *An Analysis of over Three Million Inquiries*, p. 15.

EXPERIMENTS ON COLORED ADVERTISEMENTS

Laboratory. Experiments yield further information as to the attention value of colors. The first studies to be described deal with color in general, rather than with the effect of specific colors. In one case the subjects looked through the magazine and then recorded the advertisements they could remember. The colored advertisements were 13 per cent superior to the black and white. Subjects in the laboratory were confronted with two advertisements, one colored and one black and white, and the experimenter looking through a one-way screen noted their eye movements. The first glance went to the colored one 53 per cent of the time. After this initial glance the attention was rather uniformly divided between the two advertisements. The value of color in this case was limited to getting the initial attention; other devices would be needed to keep the attention thereafter.

Store Window. In a similar experiment with the advertisements displayed on the booth in the store window, the difference between the average length of time spent by the pedestrians outside in fixating colored and uncolored advertisements was so slight that it could be accounted for on the basis of chance. In another series in which one advertisement at a time was used but the same advertisements were presented in color and in black and white in the course of the series, identical proportions of the passers-by looked toward the window but 22 per cent more stopped when the advertisement was colored. The difference, however, was of doubtful statistical significance. In still another series with a larger number of advertisements but without duplicating the colored ones in black and white, the proportion of persons who looked or stopped was slightly greater for the black and white. The experimenter was inclined to attribute this result to other variables in the advertisements or to the fact that with the colors the pedestrian more readily noted that it was "another ad" and hence passed by, whereas in the black and white he could not perceive its nature so readily and stopped to investigate.¹

The laboratory and other experimental results just cited do not afford so striking a case for color as do some of the tabulations from actual advertising experience. It is conceivable that in the latter we hear more about the successful cases and less about the negative

¹ Nixon, H. K. *An Investigation of Attention to Advertisements*, pp. 36. New York, Columbia University Press, 1926.

instances. It is also possible that colored advertisements, in general, are better prepared. They usually cost more and, just as in the case of larger space which represents a greater expenditure, the advertiser may exercise greater care in preparation (cf. p. 166). In this way other variables may give the colored advertisements an undue advantage. The actual sales returns, furthermore, are complicated by the possibility that the color's effectiveness is due partially to its illustrating the product and facilitating identification. Color undoubtedly possesses some intrinsic attention value, but perhaps not so much as has been supposed. There are also indications that this value is most marked in catching the initial attention, and that thereafter other factors are needed to supplement the color and keep the attention.

VALUE OF DIFFERENT HUES

Granted that colors have some general attention value, a further question arises as to the comparative value of red, yellow, green, blue, etc. The few experiments on this problem are open to one serious criticism, namely, they did not control the brightness of the stimuli used — a control that is almost impossible with colored papers. A certain yellow, for example, may get more attention than blue not because it is yellow, but because it is brighter than the blue. Only one experiment of this sort will be cited.¹ One-inch squares of color, four on a page, were presented in a tachistoscope, and the subject reported which color he saw first. The colors were rotated systematically in the different positions on the card so that there would be no position error. Over a hundred subjects participated in the experiment, and it was possible to compute the proportion of the time that each color was seen first. The results are summarized briefly in Table 34. Orange was seen first most frequently — 21 per cent of the time; red came second with 19 per cent. The ranks are included in the last column, with orange first, red second, blue third, and so on. As suggested above, allowance must be made for the fact that the colors used were not entirely controlled with respect to brightness. With that qualification, however, a slight trend is evident for colors at the red end of the spectrum to have higher attention value than those at the other end.

¹ Adams, H. F. *Advertising and Its Mental Laws*, p. 117.

TABLE 34. ATTENTION AND COLOR *

Color	Percentage of Time Seen First	Rank
Red.....	19	2
Orange.....	21	1
Yellow.....	12	6
Green.....	13	5
Blue.....	16	3
Violet.....	5	7
Black.....	13	4
Gray.....	1	8

* Adams.

Red Appears Nearer. This possibly higher attention value of the red links up with another experimental fact, namely, that red actually looks nearest to an observer. If the subject in an experiment is shown two areas of color and adjusts them by pulling strings until they seem equidistant, he will actually set the red farther away than some other color, such as blue. This result means that red appears comparatively nearer. This fact is usually explained in terms of chromatic aberration. When light passes through a prism the different colors, or wave-lengths, are refracted differently. Sunlight, in this way, breaks up into all the spectral colors. Similarly in going through the lens of the eye the red rays are refracted comparatively less than the others, which means that they tend to focus behind the retina. In order to bring them into focus, the lens of the eye must become slightly more convex. This same bulging of the lens occurs when the eye focuses on a near object, and through years of experience the muscle sensation incident to this process of bulging has become associated with nearness. Consequently, when the red stimulus sets up this particular muscular experience, the red appears nearer. Nearness and attention are related, because in ordinary life greater attention is paid to the nearby things than to the more distant ones inasmuch as the former are usually more important for the individual. Thus the experimental indication of higher attention value for the red portion of the spectrum appears plausible.

The results of a field study by the "Gallup" method contribute to the same problem, although here again no control of the brightness factor was possible.¹ If the data are classified merely on the basis of the predominant color in the advertisement, those featuring green

¹ Blumberg, T. "Survey Shows that Vivid Colors are Best Attention-Getters," *Printers' Ink*, February 23, 1933, 162, 49-50.

are noticed considerably more than the average by both sexes; orange is slightly above the average; red, about average; blue, a trifle below; brown still farther below; and yellow, the lowest. The inferiority of yellow in this case was attributed to its similarity to the rest of the page. This suggests the fact, to be brought out subsequently, that with colored typography the brightness contrast between type and background is an important consideration. The present survey, however, does corroborate the previous experiment to the extent that red and orange receive a satisfactory degree of attention.

These results do not mean that red should be adopted uncritically for colored advertisements. If the display is to be seen mainly in the periphery of the visual field, as in some outdoor advertising, yellow is preferable because red and green are visible only in the central portion of the retina, while yellow and blue can be seen farther out in the margin. Again, if the copy features a package it is desirable to show the package in its natural color so that customers will recognize it when they enter the store. Furthermore, in a landscape the colors should not be too unnatural; otherwise the reader may dislike it. But in many cases color is used in an advertisement solely for attention purposes regardless of the article advertised, and in such cases, if there is no other basis on which to decide, the evidence would indicate the desirability of using colors toward the red end of the spectrum.

COLOR AND TYPOGRAPHY

Brightness Contrast. In display advertising frequent use is made of colored type or colored background or both. Whatever attention value accrues to color would operate in this situation, but an additional problem arises from the fact that certain color combinations of letters and ground may be more illegible than others. It will be shown in a later chapter that with illegible type the reader is likely to pass on to something else rather than to attempt to decipher what is printed, so that whatever initial attention value the display may have had is lost.

In a number of experiments this problem has been approached from different angles.¹ To state the general finding in advance, the

¹ A fairly extensive summary of experiments on this problem will be found in Tinker, M. A. "The Effect of Color on Visual Apprehension and Perception," *Genetic Psychology Monographs*, 1932, 11, no. 2.

difference in brightness or luminosity between the letter and the background is the crucial factor. Luckiesh¹ found the greatest legibility for black letters on a yellow ground, and so on through the list, with red on green the least legible. The combinations that were favorable had a high degree of brightness contrast, except that black and white did not rank so near the top as should be expected.

Preston *et al.*² determined the maximum distance at which isolated words could be read when printed with colored inks on different colored cover stock. Of eleven combinations, the best were blue on white, black on yellow, green on white, and black on white, while the worst were orange on white and red on green. A more detailed description of the colors revealed that the best ones were described as "dark on light" or "light on dark," while the worst ones were "dark on dark" or "light on light." In a similar study in which the subjects walked toward show card colors stenciled on various backgrounds until they could read the letters, Sumner³ found that among the best arrangements were black on gray, blue on gray, and black on yellow, and among the worst were blue on black, yellow on white, and black on blue. The detailed results confirm those already cited.

Tinker and Paterson⁴ used the speed of reading test already mentioned with brief paragraphs containing one wrong word. Form A was always black type on a white ground. The other combinations were compared with this as a standard. The black on white proved to be uniformly superior, followed by green on white, blue on white, and so on down to the other extreme of red on green and black on purple. The colors were the same as those employed in the study cited above by Preston *et al.*, and the final rank order for legibility in the two studies correlated .86.

Still other approaches to the problem have been made with the tachistoscopic technique. Miyake *et al.*⁵ presented single numbers in the tachistoscope. In one series the order of effectiveness as indicated by the proportion read correctly was black on white, black

¹ Luckiesh, M. *Light and Color in Advertising and Merchandising*, pp. 246-251. New York, Van Nostrand, 1923.

² Preston, K., Schwankl, H. P., and Tinker, M. A. "The Effect of Variations in Color of Print and Background on Legibility," *Journal of General Psychology*, 1932, 6, 459-461.

³ Sumner, F. C. "Influence of Color on Legibility of Copy," *Journal of Applied Psychology*, 1932, 16, 201-204.

⁴ Tinker, M. A., and Paterson, D. G. "Variations in Color of Print and Background," *Journal of Applied Psychology*, 1931, 15, 471-479.

⁵ Miyake, M. F., Dunlap, J. W., and Cureton, E. E. "The Comparative Legibility of Black and Colored Numbers on Colored and Black Backgrounds," *Journal of General Psychology*, 1930, 3, 340-343.

on yellow, black on green, black on red. In a second series it was white on black, yellow on black, green on black, red on black. The trend is obvious. In an extensive experiment Tinker presented eight colored letters on a white ground for three seconds. The greatest legibility was for violet and red and the least for blue and yellow. The order correlated somewhat with the luminosity of the colors. The results are confirmed in another series in which each letter was of a different color. Analysis revealed that the results were not due to personal color preference.

One investigation of the problem under practical conditions may be cited.¹ A bank prepared booklets for free distribution, displayed them in racks, and analyzed results according to the number of each kind taken. The colors of the cover and the lettering were varied. The booklets which ranked highest had dark blue on white, brown on white, and green on white, all of which showed a considerable contrast. The upshot of all these experiments is that the contrast in brightness or luminosity between type and background is the most important consideration in legibility. This trend has been confirmed likewise with black, white, and gray combinations.

Printing Stock. Another experiment dealt with legibility as influenced by color and also a related problem regarding the surface of the printing paper. In it the speed of reading tests with the short paragraphs previously described were used.² Two colors of paper were employed, ivory and white, and three surfaces, glossy, dull-coated, and antique. The glossy white was taken as a standard, and results for some subjects were obtained with both Form A and Form B in order to determine any necessary correction for practice or difficulty of the forms. Thereafter the other subjects received Form A on glossy white and Form B on one of the other five arrangements. When the appropriate correction for practice was applied the results were negative throughout. No statistically significant differences between the different paper surfaces were obtained. The results indicate that speed of reading is not appreciably affected by printing black type on white or india paper in glossy, dull-coated, or antique finish. Consequently, the advertiser is free to choose any of these finishes or tints for esthetic purposes without taking into consideration any unfavorable effects on legibility.

¹ Morris, C. A. "What Color Shall the Free Booklet Have?" *Printers' Ink Monthly*, August, 1929, 19, 124-125.

² Stanton, F. N., and Burr, H. E. "The Influence of Surface and Tint of Paper on Speed of Reading," *Journal of Applied Psychology*, 1935, 19, 683-693.

AMOUNT OF COLOR

Further questions arise as to the way the color is used in the advertisement and how much color is involved. An experiment bearing on this problem was one in which a series of advertisements were exposed briefly and the recognition method applied.¹ The results were tabulated according to whether the article was colored, the background colored, or the trade name colored. The first two showed little difference, but the last, where the area of color was generally smaller, was appreciably inferior to the others. This result suggested another type of experiment in which attention to the advertisements was correlated with the actual amount of color present. By an appropriate instrument² the actual area of the color could be measured and correlated with attention value as indicated by the recognition test. The correlation coefficient was .41, which is not high but still of some interest. It appears that the amount of color rather than the way it is used in the advertisement is important from the standpoint of attention.

ESTHETIC ASPECTS OF COLOR

The discussion of color up to this point has dealt entirely with its tendency to attract attention. This tendency is largely sensory in character and does not involve the feelings aroused by color. The advertiser, however, is concerned also with the fact that some colors may be attractive or pleasing and arouse favorable attitudes toward the product. It will be shown later that anything which tends to make the advertisement attractive will be conducive to an attitude of sustained attention, whereas if the advertisement is unpleasant or is affectively neutral the reader is inclined to go on to something else even though his initial attention may have been caught. If it were possible to discover what colors are most pleasing to the average individual, that fact could be utilized by the advertiser. Other problems deal with the atmosphere or association carried by colors. If they remind the reader of something else, that "something" may be very significant in influencing his attitude toward the advertisement.

¹ Brandt, E. R. "The Memory Value of Advertisements," *Archives of Psychology*, 1925, 13, no. 79.

² A planimeter integrates the area of any plane figure as a tracing point on the instrument is moved around the outline.

The different aspects of color experience which constitute variables in experiments on esthetic value are, in conventional psychological notation, hue, brightness, and saturation. The first of these is the actual color characteristic, as red or green, and depends on the vibration frequency of the light wave. The second, brightness, is the light or dark characteristic, and corresponds to the amplitude of the wave. The third, saturation, is the actual amount of color present, and is produced by the complexity of the wave. When a color is as red as it possibly can be we speak of it as highly saturated, whereas if it is "washed-out" it is unsaturated. A high concentration of coloring material in a liquid or a large amount of pigment on a painted surface creates a high degree of saturation. All these variables will be of some importance in the consideration of colors from the esthetic standpoint.

Disagreement as to Preference. Numerous experiments have been conducted upon preference for the different hues, and the results fail to reveal any very general trend. Variations in experimental procedure account for some of the discrepancies. In some cases the subjects were merely asked to name the color which they liked best, next best, and so forth. If two subjects mention green, one may be thinking of a yellow-green and the other of a bluish-green. A better technique is to present actual colors to the subjects, who rank them as to preference. Even here difficulties are encountered in that the subjects may react to brightness, saturation, background, and even to the whole laboratory situation rather than to the actual hue or wave length. Most of the work has been done with colored papers, so that adequate control of brightness and saturation is difficult.

To show the discordant nature of the results a few typical studies are summarized in Table 35. It is possible from the original reports to compile a rank order for the colors used in each experiment. In order to make the different studies comparable, the six conventional spectral colors are lifted from the original data and summarized in the table. If more colors were used in a particular experiment they are omitted and merely the above six included. No error in the rank order would be introduced by this procedure. It was simply a matter of dropping some intermediate ranks which were not of interest in the present table.¹ The column at the left

¹ For more details regarding these various experiments and references to the original articles see Chandler, A. R. "Recent Experiments in Visual Aesthetics," *Psychological Bulletin*, 1928, 25, 720-732.

TABLE 35. RANK FOR COLOR PREFERENCE IN DIFFERENT EXPERIMENTS

	R	O	Y	G	B	V
Jastrow.....	2	5	6	4	1	3
Schulte.....	3	6	4	5	2	1
Geissler (on gray) men.....	4	6	5	3	1	2
Geissler (on gray) women.....	2	5	4	1	6	3
Garth (on white).....	3	5	6	2	1	4
Katz (on white) men.....	3	5	6	2	1	4
Katz (on white) women.....	4	6	5	1	3	2
Dorcus (saturated).....	5	2	6	4	1	3
Dorcus (less saturated).....	5	4	6	3	1	2
Washburn (on white, saturated).....	1	6	4	5	3	2
Washburn (on white, light tints).....	4	6	5	3	1	2

indicates the person who reported the experiment, and following this, in some cases, are other notations as to the conditions of the experiment or type of subject. The items in the body of the table are merely ranks. For instance, in Jastrow's experiment blue was ranked as first choice, red as second, and violet as third choice, and so on.

A glance down any particular column reveals striking discrepancy between the different experiments. Certainly no one color is universally liked or universally disliked. Blue, for instance, is chosen as first in some cases and last in others. Red shows almost as great variation. Yellow, although it never comes above fourth place, is not consistently last. It is very difficult to discern any general trend for color preferences in this table.

Passing mention should be made of an accumulation of data over a period of fourteen years on the color preferences of college students. The method of paired comparisons was employed throughout; that is, using all possible combinations of two colors and in each instance selecting the more pleasing of the two. Every color has an equal opportunity to be chosen, and the one receiving the largest total number of votes may be considered the best. For both sexes the preference for red decreased continuously from 1910 to 1918 and is now rising to its former high position. Female color preferences fluctuated from year to year to a greater extent than male.¹

Mathematical Analysis. One experiment on color preference deserves more detailed consideration because of the precautions taken and the mathematical analysis made of the results.² In one

¹ Walsh, W. E., et al. "Color Preferences of 1279 University Students," *American Journal of Psychology*, 1933, 45, 322-328.

² Guilford, J. P. "Affective Value of Color as a Function of Hue, Tint, and Chroma," *Journal of Experimental Psychology*, 1934, 17, 342-371.

series eighteen hues of medium brightness were selected and administered to 1300 subjects by the paired comparison method. The affective values were plotted on the ordinate against the actual hue on the abscissa. The curve started at about average affective value for red, dropped to a low point for yellow, rose to a little above the average for the green, dropped somewhat for blue-green, then ascended to a high point for blue, and finally dropped again for violet. This curve yielded three maxima at red, green, and blue and three minima at yellow, bluish-green, and reddish violet.

In another experiment only ten subjects but forty colors were used. Some of the colors covered the range of hues with very little difference in brightness or saturation as determined by careful judgment on the part of the subjects. Others had a wide range of brightness or of saturation. These ten subjects used a 9-point rating scale and their average curves for hue corresponded very closely with the previous curves of the 1300 subjects. This result would tend to indicate that the original experiment reflected primarily the effect of hue because in the second case the other variables were controlled.

The curve was periodic and hence could be analyzed according to Fourier's theorem into a number of harmonics. The most prominent of these were the first and the third. The former gave a minimum in the yellow and a maximum in the blue region. The other had maxima in red, green, and blue. The author suggests that these results may indicate that there are two systems of color preference, the more primitive one involving yellow and blue and the later one red, green, and blue. This suggestion is interesting in the light of the Ladd-Franklin theory of color sensation which postulates a primitive yellow-blue process. Along with this the corresponding affective process might conceivably be developed.

The data were also analyzed so as to investigate the comparative importance of hue, brightness, and saturation in color preference. The mathematical technique of analysis is too complicated for the present discussion, but Guilford develops from his analysis the "percentage of determination" of color preference by certain factors. These are given in Table 36 for men and women separately. According to the table, female preference is determined by hue 67 per cent of the time, by brightness 20 per cent, and by saturation 5 per cent. Similar figures follow for men, with hue, however,

TABLE 36. PERCENTAGE OF DETERMINATION *

	Hue	Brightness	Saturation
Women.....	67	20	5
Men.....	16	5	13

* Guilford.

playing a much less important rôle. Merely totaling the figures in one row does not give the same result as that obtained by a multiple correlation analysis, which yields a somewhat smaller total percentage of determination. In either instance there is a residual of color preference that is not accounted for by the hue, brightness, and saturation involved in the test material. It will be shown presently that individual experience and association account for some of this residual. Both sexes prefer the lighter to the darker colors, the women doing so to a greater extent, and both sexes prefer the more saturated colors — especially the men.

Stability of Preference. While persons differ markedly in color preference, the individual is nevertheless fairly stable in his choice. If a subject goes through a set of materials ranking the colors in order and repeats the test on a later occasion, his second order of preference is usually very similar to the first. In one study in which the second test was given after an interval of a year, the stability of individual preferences was evinced by a correlation of .84. The individual is stable in his personal color preferences, but his choices differ from those of other persons. The process of association or conditioning accounts for many of these differences. One person is favorably conditioned to red because of an outstanding, enjoyable experience at sunset; another likes blue because it reminds him of somebody's blue eyes; a third prefers yellow because that was the color scheme at his wedding; while another might respond favorably to green because the first garment which he remembers wearing when he was taken outdoors was of that color.

Evidence regarding these habitual associations with colors was brought out in the following experiment.[†] A color was presented and the subject wrote down the first associated word other than the name of the color. Twelve colors were used, six of them saturated and six unsaturated. After these first associations were ob-

[†] Dorcus, R. M. "Habitual Word Associations to Colors as a Possible Factor in Advertising," *Journal of Applied Psychology*, 1932, 16, 277-287.

tained the subject was then shown the colors and asked to name them. Eight weeks later each subject was given his own twelve associated words, one at a time, and asked to give the name of the color which the word suggested. After this each subject was given fifty-one words which had been selected on the basis of frequency of occurrence for all subjects, and was required to give color responses to these words.

The data bearing on the present problem are shown in Table 37, which may be interpreted as follows:

TABLE 37. ASSOCIATION OF WORDS WITH COLORS*

Original Color	Subject's Responses to Own Words
Red	Red 82
Orange	Yellow 38 Orange 39
Yellow	Yellow 61
Green	Green 78
Blue	Blue 80
Purple	Purple 50

* Dorcus.

When the subjects were given the association word which they had originally named in connection with red, 82 per cent of them gave red as their color association. When they were presented with their original association word for orange 38 per cent replied with the color yellow and 39 per cent with orange. The results were especially marked for red, green, and blue, while orange was the only one which was definitely equivocal. The data in the table, however, involve only the saturated colors. When the unsaturated were involved the percentages were much smaller, with the exception of 69 per cent for blue. These experiments indicate that association plays a rôle in reaction to colors and that such association persists for a period of at least eight weeks. The difficulty with the unsaturated colors may have been due in part to the fact that it was not easy to name them.

The data suggest further that some color associations may be sufficiently general to be of value for the advertiser, quite apart from whether those associations make the individual like the color or not. For each color there was noted the per cent of the 131 sub-

jects who gave a particular association word. Some of the larger percentages, that is, cases in which many subjects agreed in giving the same association word, are as follows: red-apple 10 per cent, red-fire 10 per cent; orange-fruit 15 per cent; green-grass 42 per cent; yellow-lemon 25 per cent; blue-sky 47 per cent. A few of these color associations are of sufficient frequency to be of interest to the advertiser.

Although the individual is quite stable in his own preferences for and associations with colors, pronounced individual differences cut across any general trends which the advertiser might capitalize. It would be very helpful if it were known that a certain color was preferred by practically everybody. This color could be employed in displays to make the copy universally pleasing, or it might even be applied to the product itself. According to the best available scientific information, such a situation does not exist. Even if it did, the manufacturer would find fashion interfering with his efforts to capitalize general color preference. If women in general actually liked red, this fact would give little comfort to a concern stocked with red dresses in a season when blue was the fashion.

SATURATED COLORS

In some of the experiments on color preference where the interest was primarily in hue, incidental information was obtained regarding other aspects, such as the brightness or saturation. In the experiment of Guilford cited above it developed that the brighter colors and the more saturated ones were preferred. Other experiments bear out the same point.¹ The results were obtained under laboratory, or at least experimental, conditions. It is conceivable that in some everyday conditions unsaturated colors might be appropriate and agreeable, while under laboratory conditions a fair amount of color is preferred. One author suggests that in the laboratory experiment the isolated patches of color are uninteresting, and, since the observer hopes to find something interesting in the color, he likes a considerable amount of it. If the experiment involves actual advertisements, the situation is immediately complicated by other variables so that it is difficult to abstract from them and measure the intrinsic relation of saturation to color preference.

¹ Cf. Bradford, E. J. G. "The Esthetic Value of Perceptive Types in Color Appreciation," *American Journal of Psychology*, 1913, 24, 245 ff.

Saturation and Area. The saturation factor is also related to the area of the color involved.¹ Situations have been found in which a particular patch of color was agreeable; when it was made very much larger it became less agreeable. As the area was increased, a corresponding reduction of saturation was necessary. It is a question of the total amount of color which reaches the eye. If an agreeable saturated area is made still larger, the result is too much color on the retina, but a decrease of saturation reduces this total color effect to a desirable amount.

ATMOSPHERE OR MEANING

In an earlier chapter the importance of creating atmosphere in an advertisement was emphasized, and instances were cited in which some background experience lent an element of suggestion to the product. Color may be used to create atmosphere in this way. Unscientific literature contains many allusions to the fact that colors carry certain meanings. Most of these statements are based on opinion alone and are comparatively worthless. Their proponents cite, for example, the fact that red was used at wedding ceremonies at some particular place and time and thus must carry an atmosphere of cheerfulness. It is possible, however, to find some time in history when red was used for funerals rather than weddings. A critical survey reveals few irrefutable instances.

Even psychological experiments in which subjects performed simple mental and motor tasks under rather highly saturated colored lights, with appropriate control of the brightness of the illumination, showed comparatively small effects. There was a hint that red was slightly stimulating and that blue was slightly depressing, but the results were not at all convincing.² Available techniques fail to reveal any fundamental effect of the different visual wave-lengths upon the organism.

Temperature. A few qualities may be found which are associated with colors with some degree of uniformity. The outstanding instance is the atmosphere of warmth and coolness. The red end of the spectrum to most people suggests warmth more than does the violet. This may have been due originally to association with

¹ Washburn, M. F. "A Note on the Affective Value of Color," *American Journal of Psychology*, 1911, 22, 114.

² Pressey, S. L. "The Influence of Color on Mental and Motor Efficiency," *American Journal of Psychology*, 1921, 32, 326-356.

fire. A red stimulus would remind one of a red fire and also of the attendant warmth. In subsequent generations this association might be intensified by calling children's attention to it. Experimental evidence substantiates the widespread existence of this type of association. In one such experiment nondescript designs of different colors were presented to the subjects two at a time. In each instance they stated which of the two embodied most effectively a designated meaning or atmosphere. When it was a question of suggested warmth, the colors which were picked most frequently were the reds and oranges at a rather high degree of saturation. When the subjects were called upon to state which color of the pair seemed cooler, the results pointed toward the blue end of the spectrum. In the same experiment red and yellow carried a suggestion of cheerfulness.¹

Other Qualities. Another similar experiment included the colors in arrangements designed to set up if possible a real esthetic attitude.² The subjects checked in a long list the qualities suggested by the materials, but did not have to check any particular item unless they wished. It was hoped that they would thus judge the actual expressiveness of the design to them and not what feelings it was supposed to evoke. Each design consisted of eight red or blue masses bounded by various curved or angular lines. They differed only in one respect at a time, such as having the boundaries between the masses consist of circles, squares, angles, or waves. The designs were done in water colors. The list of feelings which the subjects were to select to match the designs were divided into eight groups. A few excerpts from each group follow: 1, spiritual, lofty, serious; 2, pathetic, doleful, dark; 3, dreamy, yielding, pliant; 4, lyrical, leisurely, soothing; 5, humorous, playful, graceful; 6, merry, joyous, bright; 7, exhilarated, soaring, restless; 8, vigorous, robust, exalting. When the data were analyzed according to the number of votes in each of these groups of adjectives for the particular variable under consideration, the only statistically significant difference between red and blue was for group 6, which included merry, joyous, gay, happy, cheerful, and bright. Three hundred and thirteen of the votes were for red as against 100 for blue. The negative character of the remaining results indicates that consistent trends in atmosphere created by colors are infrequent.

¹ Cf. Luckiesh, M. *Light and Color in Advertising and Merchandising*, Chap. V.

² Hevener, K. "Experimental Study of the Affective Value of Colors and Lines," *Journal of Applied Psychology*, 1935, 19, 385-398.

The association of temperature with colors is probably sufficiently universal so that the advertiser might take advantage of it. If he wishes to show a picture of a blanket which looks warm and comfortable or to create an appropriate atmosphere for a heating appliance he will find it advisable to feature a red display rather than a bluish one. On the other hand, if he is presenting ice cream or cooling talcum powder, or hot-weather beverages, the use of blue in the display is indicated. A gasoline concern deliberately avoided coloring its product red for fear it would suggest overheating of the engine, while another colored it to suggest "pep." Some summer beverages that are supposedly cooling have unfortunately a red or brown hue. The association of red with cheerfulness or excitement may also be of some value to the advertiser. It might well be used in displays for fast automobiles, lively phonograph records, or places of amusement. Scientists would hesitate to go beyond this point in recommending the use of any particular color in order to create an appropriate atmosphere. Experiments do not reveal sufficiently uniform trends to be of practical value.

APPARENT WEIGHT OF COLORS

Design. When combinations of colors are employed in a design, it is often desirable to consider their apparent weight. If the apparently heavier one is placed in the upper part of the design the total effect is likely to appear top-heavy. The initial problem, then, is the determination of the apparent weight of colors. This problem has been approached in several experiments. The material in some consisted of circles with the upper half of one color and the lower half of another, or rectangles similarly composed of two squares, one above the other. With such materials the paired comparison technique (p. 15) was used. In another experiment two areas of color had a line extending between them, and the subject was required to point to the place where he would put the fulcrum if he wished the masses of color to balance.

Experiments of this sort bring out one definite trend: The important factor in the apparent weight of colors is brightness. The darker colors appear uniformly heavier than do the lighter ones. Recurring to the original problem, if it is desirable to make an arrangement which does not appear top-heavy the darker colors should be placed below, rather than above.

Packages. The problem of apparent weight operates in connection with the color of the package.¹ The manufacturer may be interested in a design that will create an illusion of greater weight for the package. The wary purchaser, however, can read the weight printed on the label. The problem was investigated by presenting eight packages, approximately $16 \times 9 \times 5$ cm., in a glass case similar to a display case in a store. They were arranged in eight different orders, such as a-b-c-d-e-f-g, b-c-d-e-f-g-a, c-d-e-f-g-a-b, for the different subjects, so that any error due to position would be canceled in the averages. The packages were ranked in each instance according to their apparent weight. Table 38 gives the average

TABLE 38. APPARENT WEIGHT OF COLORED PACKAGES *

Yellow	3.5
Green	4.1
Blue	4.7
Purple	4.8
Red	4.9
White	3.1
Gray	4.8
Black	5.8

* Warden.

rank assigned to each color, the smaller figure indicating that the package appeared lighter in weight. The order for the actual hues was essentially the order of their brightness value so far as could be judged by the experimenters. In the last three entries of the table the hue is eliminated and the question is purely one of brightness. The white package is consistently ahead of the gray, and that in turn is superior to the black when lightness in weight is being considered. The result obtained in the more general experiments with colored areas is thus corroborated with reference to colored objects in the shape of packages. The darker packages appear heavier.

The question has been raised as to whether color has any effect on the apparent size of the object as well as on its apparent weight. The results are not clear-cut. In the experiment just described subjects ranked these packages likewise according to the apparent size, and no consistent trend was found. This work was repeated in another experiment with a paired comparison technique rather than by mere ranking of packages, and it was found that a tendency

¹ Warden, C. J., and Flynn, E. L. "The Effect of Color on Apparent Size and Weight," *American Journal of Psychology*, 1926, 37, 398-401.

existed for the lighter objects to appear comparatively larger and the dark objects to appear comparatively smaller.¹ Obviously further work is necessary in order to reconcile these discordant results, so that judgment should be withheld for the present.

COLOR COMBINATIONS

Preference for single colors has been shown above to be largely an individual matter. Associations which have been built up in the life of the individual influence his choice more than anything intrinsic in the colors themselves. With regard to preferences for color combinations, the problem becomes still more complicated because it deals with a combination of individual factors. Statements may be found in the literature based either upon artistic insight or upon inconclusive experiments. It will be worthwhile to do little more than mention a few such statements. The artists adopt red, yellow, and blue as their primary colors rather than those which the psychologists employ, and they often state that the best combinations are those which do not cross a primary. For instance, red and orange or yellow and green would combine more attractively than red and green. They also state that if colors do cross a primary they can be made into a pleasing combination by weakening them, that is, reducing saturation.

In experiments in which colors were laid on the table and the subjects were required to select pairs which they thought would make the best combination, many of the pairs selected were complementary colors. A study of this complementary aspect was made with actual advertisements.² Ten advertisements of two predominant colors each were ranked for preference by fifty-seven persons. The area of each color was then measured with a planimeter (cf. p. 252). Two colors matching the two in each advertisement as nearly as possible were placed on a color-wheel in the proportions indicated by the planimeter. The resulting mixture as the wheel was rotated was evaluated in comparison with a certain standard scale (Munsell) to determine how closely it approached gray. The more nearly the colors were complementary, the more closely would the mixture approach gray. In Table 39 the pairs of colors are ranked on the

¹ Gundlach, C., and Macouvey, B. "The Effect of Color on Apparent Size," *American Journal of Psychology*, 1931, 43, 109-111.

² Starch, D. *Principles of Advertising*, p. 603.

TABLE 39. COLOR PREFERENCE AND DEGREE OF COMPLEMENTARINESS

	Complementariness ¹	Preference
R-G.....	1	4
B-Y.....	2	1
V-G.....	3	5
G-Y.....	4	9
P-Y.....	5	3
P-O.....	6	10
R-G.....	7	6
B-O.....	8	7
R-O.....	9	8
B-R.....	10	2

basis of the color-wheel data and on the basis of the combined preferences of all the subjects. The pair of colors that was most nearly complementary was a particular red and green, and this advertisement was ranked fourth in the list. Next in order of complementariness came blue and yellow, and this advertisement was actually chosen as the best one by the subjects. Then came a violet and green, which was ranked fifth by the subjects. The only glaring exception was the combination blue and red, which was the least complementary as indicated by the color-wheel but ranked in second place when embodied in the advertisement. This experiment lends a little support to the other finding that the complementary character of colors plays a rôle in preferences for color combinations.

In another study by Geissler ² some evidence was secured to the effect that the pleasantness of the combination depended upon the pleasantness of the components. This principle could not be universal, of course, because some individually agreeable colors would definitely clash.

SUMMARY

Color has an obvious tendency to attract attention, and its use in advertising has increased through the years. Numerous cases are on record in which the addition of color to an advertisement produced a remarkable increase of sales or inquiries. Sales letters on colored paper brought more replies than similar letters on white. Interviews with magazine readers showed that they recognized a larger proportion of the colored advertisements. Kitchen utensils with colored handles outsold the plain ones even when given disad-

² Geissler, L. R. *Affective Tone of Color Combinations*, p. 150 ff. Studies in Psychology contributed by colleagues and former students of E. B. Titchener, 1917.

vantages in display and price. Analysis of a large number of miscellaneous coupon returns revealed a much larger proportion for colored advertisements.

Experimental results do not afford so striking a case for color as the foregoing. Recognition tests with magazines which have been examined under controlled conditions indicate an appreciable superiority of color. Observations of eye movements show a slight tendency for the first fixation to go to the colored items, but otherwise the results are negative.

Among the different hues, tachistoscope experiments with colored papers suggest that the red end of the spectrum has the higher attention value. Interviews regarding advertisements recognized give slight indications in the same direction. The result appears plausible in the light of the fact that red looks nearer owing to chromatic aberration, and greater attention is normally paid to near objects.

The use of color in typography raises the question of legibility as affected by the color of background and type. Numerous investigations show that the greatest legibility occurs when there is a marked contrast in brightness between type and background. The amount of color, rather than the way it is employed, is important from the standpoint of attention.

If a color is intrinsically pleasing or reminds the reader of something pleasant, a more favorable attitude toward the advertisement is evoked. Investigations of color preference indicate no consistent trend. Mathematical analysis of data on preferences shows that choice is determined by hue more than by brightness or saturation. Brighter and more saturated colors are generally preferred. There is, however, a residual of preference not accounted for by these three variables.

Although people differ in the colors which they like, the individual is stable in his own preferences. Many of these preferences can be attributed to association of the color with some pleasant or unpleasant experience. The advertiser is thus unable to select any color for his display which will be universally liked by the readers.

Saturated colors, as mentioned above, are more pleasing, but this fact must be considered in relation to the area involved. If an agreeable arrangement is obtained and the area is then increased, the saturation must be decreased in order to maintain the same affective value.

Colors are popularly supposed to carry with them a certain atmosphere or to be associated with certain qualities. The only quality suggested with sufficient uniformity to be of value to the advertiser is the warmth of the red end of the spectrum and the coolness of the blue end. Dark colors appear heavier, and this fact may be utilized in a design by placing the darker color below the lighter in order to avoid a top-heavy effect. The same tendency was brought out in judgments of the apparent weight of packages; the darker ones appear heavier.

With preferences for color combinations the results are still more variable than for single colors. Artists prefer combinations which do not cross a primary. In some instances it is found that the agreeableness of the combination depends on the agreeableness of its components. Some experiments reveal a preference for complementary pairs of colors.

CHAPTER XIV

PICTURES IN ADVERTISING

UNIVERSAL APPEAL

A CHINESE proverb states that "a picture is worth a thousand words," but it does not specify what kind of picture or what kind of words. Illustrations do constitute an effective device for attracting attention to an advertisement. As a matter of fact they make a universal appeal. Early writing was largely pictorial, and many of the present written symbols in languages such as Chinese are simply conventionalized forms of crude drawings of natural objects. As a means of communication, pictures speak a universal language. One can peruse a magazine in a language with which he is unfamiliar and glean something from the pictures. The frequency of illustrations in children's books indicates their importance as stimuli to the attention. Even adults when they are killing time in a dentist's waiting room select the magazines which are most profusely illustrated. Certain news publications with a large circulation make an effort to tell nearly all of their story in pictures and employ a minimum of textual material.

Another valuable aspect of the picture is its ability to present at a glance what it might take a whole paragraph to describe in words. Sometimes an unlimited verbal account will never approach a picture. If one is attempting to describe the panorama from the porch of a summer hotel, an actual photograph will do it much better than the description concocted by the average copy writer. Moreover, it does not take the reader so long to appreciate the view in the picture as it would to read the description, a differential which is important in these days of hasty perusal of newspapers and magazines. Or again, illustrations make technical passages more understandable to the layman. In order to explain to the purchaser of an automobile the nature of a worm gear it is necessary to talk in terms of shafts, pinions, and pitch of threads. Gestures would be employed in a verbal presentation. A picture, however, appropriately labeled with arrows indicating the direction in which the parts move might solve the problem more satisfactorily and in briefer time and space. Phantom photographs which show the interior of the object in lighter

tint facilitate such technical explanations. Actual selling points may be presented graphically and dramatically. In discussing a large casting, it is much simpler to show a photograph of it with a human being by way of contrast than it is to talk in terms of tons or linear feet. Thus pictures are widely used, speak a universal language, and make it possible to present a detailed and complicated message in brief compass; but it is the task of the psychologist interested in advertising to discover what kinds of pictures are the most effective for his purpose.

INDIVIDUAL DIFFERENCES IN SUSCEPTIBILITY

Attention must be called to the fact that all persons are not equally responsive to pictures. These variations are attributable to differences in imagery types. The various problems of imagery will be discussed in more detail subsequently (Chapter XVI). These types may be revealed, however, by simple experiments in which the subjects close their eyes and imagine details of some particular scene, such as a dining room. Some persons can reinstate vivid visual images or mental pictures of the way the table looks. Others are more facile in recalling the sound of the dishes, and others get the feeling of going through various motions, such as biting a lump of sugar. Still others may excel in calling up odors or tastes. There is some evidence that children are predominantly visual in type and later develop facility in the auditory or kinesthetic aspects.¹ These types are not always clear-cut, and many persons are of a "mixed" type; nevertheless there is a definite emphasis in many cases.

The main point to be borne in mind in the present discussion is that persons who are especially good in calling up visual imagery are not so dependent upon pictures in advertisements as are persons of some of the other types who cannot so readily supply their own pictures. In experiments where a group of advertisements was arranged in the order of their persuasiveness, the subjects fell into two fairly distinct groups, one of which selected advertisements in which pictures predominated while the other chose advertisements in which text was more pronounced.²

Granted that differences of this sort exist, the implication for the advertiser is that if his copy is to be seen primarily by good visual-

* Cf. Ruckmick, C. A. *The Mental Life*, Chap. VI. New York, Longmans Green, 1928.

* Cf. Hollingworth, H. L. *Advertising and Selling*, p. 108.

izers he need not be so particular about the picture, and vice versa. The unfortunate aspect of the situation, however, is that he does not know which of his readers are good visualizers and which are not. It is probable that among the readers of the average magazine both types are represented. It is just possible that people who are weak in imagery and consequently require pictures are found more numerous among the readers of magazines which are replete with pictures, and on the other hand that advertising media which contain comparatively few pictures in the actual reading material are used to a greater extent by persons who supply their own pictures. Consequently, if an advertiser is placing copy in a particular medium in which are featured a great many illustrations, it would be safer to stress pictures in his copy. The only other alternative would be to assume that the readers of any particular medium included both the imageless and the visualizers, and consequently to run copy which featured a fair proportion of both text and cut.

GENERAL RESULTS WITH PICTURES

Numerous instances might be cited in which the use of pictures in some particular piece of advertising copy produced a distinct gain in coupon returns or in sales. A small advertisement for a memory course had been set practically solid in 8-point type, with a headline about a "Startling Memory Feat that You Can Do." The course itself was not mentioned until well along in the advertisement, and the price was stated only at the end. It was thought that the headline would select the real prospects, who would then read the entire advertisement. Sales, however, began to fall off, so that the advertisement was changed by including a picture of a man blindfolded, with the same headline. In order to include the original text with this additional space occupied by the picture, it was necessary to set the advertisement in 6-point type, which is very small for advertisements. However, the picture was effective because the sales cost dropped from between \$1.50, and \$2.25 down to about \$1.00.¹ Small advertisements for a watch were run with and without pictures of the watch, and the former arrangement actually sold 33 per cent more watches and obtained 124 per cent more inquiries.² Letters used in a direct mail advertising campaign pulled

¹ Rheinstrom, C. "Picture Cuts Memory Course Sales Cost," *Advertising and Selling*, March 7, 1928, 10, 30.

² Poffenberger, A. T. *Psychology in Advertising*, p. 292.

16 per cent replies, but when a cut or picture was placed at the top of the letter the result was 29 per cent.

Sometimes the inducement offered in the advertisement is a copy of the picture itself "suitable for framing." A soap advertisement ran in six women's magazines an attractive picture of a baby. Within four days after the first magazine reached the newstands 33,000 coupons were in the mails, and the total number of requests was 235,000. Similarly a toothpaste featured a picture of a child brushing a dog's teeth. To secure a copy the reader had to send in a carton. Some 115,000 requests were received.¹ The number of such requests is mute evidence of the attention and interest aroused by pictures.

In one of the Gallup studies in which persons were interviewed to determine just what pages of a magazine they recognized as having read, some light was thrown on the general effectiveness of pictures.² Advertisements without pictures received 44 per cent less attention than the average on the part of men and 83 per cent less than the average for women. Mention was made earlier (p. 244) of a study of direct-mail sales letters in which the color of paper and return envelope was varied and in which a cut was used in some cases and not in others. Whereas the white paper and envelope with no cut pulled 9 per cent replies, the white paper and white envelope with a cut brought 18 per cent. Other comparisons in the series indicated that the sales letters with the pictures were definitely superior.

KIND OF PICTURE

Size. Granted that pictures in general are effective in securing attention, further detailed problems arise. One of them has to do with the size of the picture. A study bearing directly on this point was made by the technique of presenting two advertisements and watching the eye movements of the observer through a one-way screen. When the two advertisements had a large and a small picture respectively, the first fixation went to the large one only three per cent more than to the smaller. The distribution of total time spent during thirty seconds of observation showed no appreciable advantage for either picture.

¹ Anon. "235,000 Want This Baby," *Printers' Ink*, February 25, 1932, 158, 48.

² Blumberg, R., and Rheinstrom, C. "How Advertising Techniques are Rated by Gallup Survey," *Printers' Ink*, March 24, 1932, 158, 117 ff.

Experiments on People versus Objects. Another problem concerns the actual subject of the picture. A profitable classification may be made on the basis of people versus objects. Using the technique just mentioned, and presenting simultaneously an advertisement containing a picture of a person and one containing a picture of an inanimate object, the first glance went to the former 23 per cent more often than to the latter. During a period of ten seconds the advantage was 49 per cent and during the total period of thirty seconds, 31 per cent more time was spent in observing the person than in observing the object.¹ Further data on this same point were obtained in the experiment in which a booth was established in a store window and the reactions of passers-by noted. When the advertisement which was displayed contained a picture of a person 19 per cent of the pedestrians looked toward it, but when it contained merely the picture of an object only 16 per cent looked. The percentage who actually stopped and came up to the window under the former condition was 2.1, and under the latter 1.3.

Subjects were carried past outdoor poster boards in automobiles at constant speeds and were subsequently checked by means of recall and recognition techniques for the details shown on the boards. One analysis of the data was made on the basis of the kind of pictures used in the display. The results are summarized in Table 40.²

TABLE 40. PICTURES OF PEOPLE VERSUS PICTURES OF OBJECTS *

	Recall		Recognition	
	Pictures of People	Pictures of Objects	Pictures of People	Pictures of Objects
Uninformed.....	30	17	38	22
Informed.....	104	62	59	52
Both.....	67	39	48	37

* Burr and Crockett.

The first row gives results for subjects who were not informed when being carried by the poster boards that they were to be tested subsequently regarding details on those boards. Under these conditions the actual number of items recalled was 30 for the pictures of people, and 17 for the pictures of objects. These figures were obtained by a rather complicated scheme in which different weight was given to

¹ Nixor, H. K. "Use of Pictures of People," *Journal of Applied Psychology*, 1925, 9, 176-187.

² Burr, H. E., and Crockett, T. S. "A Technique for Poster Board Advertising," *Journal of Applied Psychology*, 1928, 12, 43-55.

recall of the product, the headline, and so forth. The row labeled "informed" comprises similar data after the subjects had already been through one series of this sort, and were driven without further comment past a second set of boards. They suspected that they would be called upon to remember those boards, so were not in the typical unbiased attitude in which one ordinarily approaches outdoor displays. In the bottom row both types of data are combined. The figures at the left give the results for recall, and those at the right for recognition. The results show with complete consistency that better memory prevailed for pictures of people in the poster boards.

This result doubtless reflects a tendency in persons to be more interested in people than in things. Human beings provide more variety and unpredictable behavior, whereas inanimate objects do not have that flexibility and uncertainty which intrigue the attention. Although there is no experimental evidence for the fact, some advertisers testify that if they cannot get the whole individual into the picture, they try to include the face. The face is normally the most interesting part of the individual and has the best attention value. If the picture must be included in a small space, the entire figure cannot be treated adequately, but the face alone filling that space will have satisfactory attention value.

Interviews. Data in one of the studies in which housewives were interviewed to determine what features they could recognize while the interviewer turned the pages of magazines they had read (cf. page 24) were analyzed with reference to kind of illustration.¹ They were classified as to photographs of people, drawings of people, photographs of product, drawings of product, and no illustration. The last of these was decidedly inferior in "stopping power" in two successive years. The photographs of people ranked high in both 1931 and 1932. Photographs of the product, however, increased comparatively in effectiveness and in 1932 were the equal of photographs of people. Drawings of either people or product proved inferior to photographs in this study.

The Historical Approach. This approach indicates a trend toward an increased use of pictures of people in advertising. Excerpts from several studies are presented in Table 41.² The first block of

¹ Rheinstrom, C. "What Stops Ad Readers Today," *Advertising and Selling*, October 13, 1932, 19, 23 ff.

² Kitson, H. D., and Allen, I. "Pictures of People in Magazine Advertising," *Journal of Applied Psychology*, 1925, 9, 367-370; Kaiserman, J. J., *Historical Trends in Advertising*, Master's Thesis, Ohio State University; Roe, S. T. "Men in Women's Advertising," *Advertising and Selling*, May 9, 1935, 25, 27 ff.

the table shows the percentage of the illustrated advertisements which contained pictures of people. In the *Literary Digest* the percentage increased from 44 in 1906 to 71 in 1930. For the *Saturday Evening Post* and the *Woman's Home Companion* the percentages for 1925 and 1930 have remained consistently at 70. The increase in and the present use of pictures of people is striking, and substantiates the effectiveness of these pictures from the attention standpoint mentioned earlier.

The data were analyzed also with reference to the sex of the persons shown in the pictures. No very pronounced change is noticeable in the *Literary Digest* except the jump from 69 per cent to 86 per cent pictures of men between 1906 and 1915. Thereafter some fluctuation occurs with no consistent trend. For the same period the percentage of illustrations portraying women shows no pronounced tendency in the *Digest*, beginning with 43 and ending with 47. Recent data from the *Saturday Evening Post* show about 80 per cent male and 50 per cent female pictures.¹ A different situation is found in the women's magazines, where the available data reveal 38 per cent showing men in 1925 and 31 per cent five years later, while the proportions for women are 88 per cent and 91 per cent respectively. Obviously, the women's magazines feature pictures of women. Much of this tendency is due to the fact that in order to show the product in use it is necessary to show women using it. One other investigation in which the percentage was computed in a slightly different manner is given in the last column of the table. Here the total illustrated advertisements are taken as a base rather than those including illustrations of people. In the *Ladies' Home Journal* the percentage of such advertisements picturing men ranges from 3 per cent in 1915 to 25 per cent in 1935. The encroachment of men into women's media is noticeable. It reflects the tendency to utilize the sex interest, although there is still a predominance of women in advertisements in women's magazines. No ready explanation is available for the predominance of male pictures in general magazines.

PHOTOGRAPHS VERSUS DRAWINGS

Another problem concerns the effectiveness of different art forms in getting attention. The two common methods of illustrating advertisements, namely, reproducing a drawing made by an artist

¹ A picture including both sexes is counted in both male and female tabulations.

or reproducing a photograph in half tones, have been investigated from this standpoint. Dummy magazines which included pictures reproduced by both methods were employed in one experiment.¹ The pictures reproduced as photographs were found to be 10 per cent superior to the drawings from the standpoint of recognition. In another study seven advertisements with photographs and seven with drawings were shown to 100 persons, who then recalled all the details they could. The responses were given weighted scores involving the name, the picture, headings, and so forth. The average scores for the advertisements containing photographs were 34 per cent superior to the others. In the interview study (Gallup method) just mentioned (p. 272), drawings were inferior to photographs. The only explanation suggested for this finding is that the photograph appears more natural and catches attention because of this realism, just as a living model in a clothing store window attracts more people than does a dummy. A possible superiority of the drawing is that the artist may idealize the subject. The pictures of young men who used to wear a certain brand of collar and who are now wearing the shirts manufactured by the same concern look more like Apollo than any actual human being. The artist has simply outdone biology. However, the possibility of retouching photographs minimizes the superiority of the drawing even from this angle. Moreover, a photograph of the product has the advantage that it builds confidence because the observer feels that he is seeing the product exactly as it is. A sketch of a very long and graceful automobile may arouse suspicion.

The historical method reveals a considerable increase in the use of photographs in advertising.² Table 42 gives the percentage of

TABLE 42. PERCENTAGE OF ADVERTISEMENTS ILLUSTRATED BY PHOTOGRAPHS

<i>Literary Digest</i>	<i>Saturday Evening Post</i>
1895..... 3	
1910..... 24	
1920..... 20	
1921.....	32
1925..... 26	25
1929.....	40
1930..... 29	
1933.....	61

¹ Adams, H. F. *Advertising and Its Mental Laws*, p. 301.

² Kitson, H. D. "Development of Art Forms in Advertising," *Journal of Applied Psychology*, 1922, 6, 59-68; Giellerup, S. H. "What the Depression Years Have Done to the Ad," *Advertising and Selling*, August 30, 1934, 23, 25.

the advertisements which were illustrated by photographs in two media through a period of years. In each case a systematic sample was taken from each year's advertising, and the increased use of photographs is obvious. Although much of the trend may be attributed to the improvement of the half-tone process, it may also reflect the greater psychological effectiveness of the photograph.

A questionnaire was sent to art directors in order to determine their opinions on this question of photographs versus drawings.¹ A few typical opinions may be quoted.

"Art based on realism seems to have gained somewhat in popularity in the last year or so."

"There is some indication that advertising is turning from the surfeit of black-and-white photographs to drawing."

"There is more of a sameness to the photograph and it makes people and things look real. The advertisers like that."

"Believe there will be a reaction against the present overwhelming use of photographs on account of the inevitable duplication of effects. However, the sincerity and authenticity of the photograph plus the great artistic strides being made in this field assure them a lasting place."

These opinions are apparently divided, but are cited merely to show that the problem is not settled so far as art directors are concerned.

RELEVANCY OF PICTURE

Attention Value. Pictures for advertisements are often selected because of their attention value, regardless of whether they are related to the product. This policy should be examined in the light of experimental data. From the sheer standpoint of getting attention, little difference is found between relevant and irrelevant pictures. A study was made by watching eye movements when advertisements with a relevant and an irrelevant picture were presented simultaneously. The first fixation was directed to the former in 49 per cent of the cases, and during a period of thirty seconds about 44 per cent of the time was devoted to the relevant cut. It is possible that the reader lingered slightly on the irrelevant picture in the effort to determine its relation to the advertisement. At any rate, the relevant picture had no superiority.

¹ Anon. Questionnaire in Advertising Arts Section of *Advertising and Selling*, May, 1933, 22, 9.

Memory Value. The advertiser, however, is interested in something more than getting attention for the picture. If the picture does not tie up in some way with the product, it may do nothing more than get attention and amuse the reader for a moment before he glances at something else. Experiments with irrelevant and relevant pictures have been conducted with a view to determining which made the more lasting impression, or which enabled the subject to recall the trade name and the article advertised. An entirely different result is obtained in these experiments.¹

The dummy magazine technique was used, including advertisements with relevant and irrelevant cuts. The subject looked through these on two occasions two days apart, and five days after the last presentation recalled as many details as possible regarding the advertisements. The results were scored in two ways: first, on the basis of specific recall of trade names, and second, on the basis of a mere description which was sufficient to identify the advertisement, although the trade name could not be recalled. Two dummies were employed, A and B. The data are shown in Table 43, with the

TABLE 43. RECALL RATIOS FOR IRRELEVANT VERSUS RELEVANT PICTURES *

	Irrelevant Pictures	Relevant Pictures
Recall of trade name		
Dummy A.....	29	100
Dummy B.....	38	100
Description of advertisement		
Dummy A.....	28	100
Dummy B.....	80	100

* Laslett.

recall score for the advertisements with the relevant pictures taken as 100 in each instance, and the score for the irrelevant ones reduced to a ratio to the relevant. The upper portion of the table gives data when the subjects were required to recall the actual trade name or article, and the lower when they were merely required to identify the advertisement. In the former case, the advertisements with irrelevant pictures are recalled only 29 per cent as readily as those with relevant pictures in one dummy and 38 per cent in the other. When less specific recall is required, the inferiority of the irrelevant pictures is not so great in one case, but the results on the whole show

¹ Laslett, H. R. "The Value of Relevancy in Advertisement Illustrations," *Journal of Applied Psychology*, 1918, 2, 270.

strikingly that advertisements with irrelevant pictures are not remembered so readily as those with relevant pictures. The previous experiment showed that relevancy is unimportant from the standpoint of sheer attention value. From the standpoint of recall of the idea, however, relevancy plays a significant part. The advertiser naturally wants the prospect to recall the idea or the commodity and not merely devote a moment of attention to the advertisement and then to forget about it. Consequently, the use of relevant pictures is indicated.

There is a further danger that if the picture is too irrelevant it will get all the attention, and the reader will miss the rest of the copy entirely. A firm which was selling stationary gasoline engines for agricultural uses conceived the idea of putting a picture in the advertisement to catch attention. They did run a cut of the engine itself, but placed an attractive young lady beside it. The result was that the young lady secured all the attention, and no one saw the gas engine. A toothpaste concern ran a large picture of a pair of legs along with a caption about "gleaming tartar-free teeth." If one read far enough, he would discover that by using this toothpaste he could save enough money to buy a pair of silk stockings every so often; but most of the readers looked at the stockings and let it go at that.

Tie-up of Irrelevant Picture. When it appears desirable to use an irrelevant picture, effort should be made to tie it up rather closely with the commodity, and to do so early in the advertisement; otherwise the reader will miss the point. An advertisement ran the headline "Can Papa Milk a Cow?" accompanied by a picture of a man in evening clothes scrutinizing the animal. The text immediately continued to the effect that he couldn't milk a cow but he did know that the milk should be kept in a particular kind of refrigerator. The picture was an unusual one which caught attention and immediately led to the matter of proper refrigeration for the milk. If the advertisement had presented that unusual picture and then immediately talked of refrigerators without transition, it would have failed in its purpose altogether.

An English soap manufacturer wished to run copy featuring gardens, which apparently make quite an appeal in that country. He used a picture of an old-fashioned garden with white clothes flapping unobtrusively on a line and with an insert giving some points about care of cut flowers. This interesting material was then tied up with

Sunlight Soap as follows: "Cut flowers carry the fragrance of the garden indoors. They bring the joys of sunlight into the home. And clothes washed with Sunlight Soap carry freshness and fragrance wherever they go." If the transition from picture to commodity includes too many steps the reader may not follow it. An advertisement for ball bearings in an industrial magazine featured a pretty girl. It developed that the bearings were used on a machine that made the fabric that made some of the garments that the young lady wore. This tie-up was too remote, and was consequently ineffective.

An irrelevant picture that is very unusual for the medium used may get special attention for that reason, but it is obviously necessary to tie it up with the product. In an electrical trade journal an advertisement presented a picture of a baby sitting behind a switchboard. Such a picture in that journal was so unusual that it attracted much attention. The transition to the product was immediate with the heading "You don't have to baby this switchboard wire."

Harmony between Text and Cut. Even though the text and the illustration are both relevant to the commodity, difficulty may arise because they do not harmonize with one another. If the illustration takes the reader's interest in one direction, and the text in another, even though both may be pertinent to the product, the conflict in attitude is likely to result in lack of interest in the advertisement. For instance, in an advertisement for a piano, a young couple is shown sitting playing and singing, with cupids in the background and an atmosphere suggestive of romance. The text speaks immediately of the quality of the tone and the general construction of the piano. All these points are relevant enough, but they conflict. One looks at the picture and is prepared for further details about the budding romance; instead he is brought down abruptly to the question of tone quality and other mundane things. Or again, an automobile advertisement shows a picture of a private swimming pool with cars parked at one side and attractive people in bathing costumes disporting themselves. The obvious lead would be that with this type of car one can have a good time and mingle with people of this sort. However, the text does not capitalize that association, but immediately explains that the car is the embodiment of the highest mechanical skill. There is a distinct let down or shock in this sudden shift of point of view. By way of

contrast another automobile advertisement portrays a brilliantly colored autumn scene with the car in the foreground. Immediately the text states that "The Pierce Arrow adds a new pleasure to touring to the country, to beautiful scenery, by the splendid way it copes with country road conditions . . ." It then makes a transition to other things pertaining to the mechanical features of the car in coping with these road conditions, but the initial sally in the text follows directly the ideas suggested by the picture of the autumn scenery. In this way no conflicting attitude is aroused on the part of the reader.

Theoretical Basis. Attention is essentially a form of adjustment which enables the individual to get more of the object. On the lower sensory levels one turns his ocular mechanism toward the object or holds his breath so that he may listen more adequately and thus obtain a more complete perception. In contemplating an advertisement one makes adjustments which are more implicit but nevertheless facilitate more complete reception of the stimuli from the advertisement. It is characteristic of the process of attention that when the organism is adjusted to one item, other things that are directly related to it also secure good attention, while irrelevant matters produce an unfavorable reaction because the attention is otherwise adjusted. Consequently, if the reader is set or adjusted for one aspect of the advertisement, such as the romance at the piano, the other details come as a distinct intrusion and demand a resetting of his attitude. Usually they either fail to register at all or else they produce a conflict. Such conflicts are annoying, and there is a danger that the unpleasantness will spread to the product itself. It is unwise for the advertiser to trifle with this principle of "affective expansion" and arouse unpleasant feelings which may be transferred to the product which he is trying to sell.

Pictures occasionally derive additional value because of some symbolism or association which suggests still further selling points. The advertisement for a coffee substitute showed a woman registering insomnia and the shape of the whole picture was that of a cup and saucer. A cough-drop advertisement which featured "possible strain on the heart" had a cut of a coughing person set in a heart shape. Such "double duty" illustrations carry additional associations which may supplement the appeal normally carried by the picture.

Historical Trends. The increase in the use of pictures in adver-

tising scarcely needs comment. The proportion of the advertisements containing illustrations in some newspapers which were sampled increased from 20 per cent in 1895 to between 70 and 80 per cent at the present time. Similar results were found with reference to magazines. It is interesting to note, however, that the proportion of space occupied by the picture in the illustrated advertisement has changed very little. Approximately 30 per cent of the area of the advertisement has been devoted to the illustration over a period of years. This finding substantiates the point made previously that the size of the illustration is less important than its subject. Starch reports a decrease in the frequency of pictures which are used primarily to illustrate the commodity and an increase in those which are definitely attention-getting.¹ This trend coincides with the increase in the amount of advertising and the consequently greater difficulty in securing attention for a specific advertisement.

MECHANICAL VERSUS INTEREST INCENTIVES

Attention devices discussed in recent chapters may be subsumed under two general classes. Size, intensity, motion, isolation, and position derive their attention value primarily from their mechanical effect upon the sense organs. Novelty, the comic, color, and pictures are effective not so much because of the mere sensory effect but because they link up with previous experiences, remind the reader of other things, and arouse his interest. They may be spoken of as "interest incentives."

The question may be raised as to the comparative merits of these two types of attention device. In one experiment² the advertisements in a magazine were examined by several advertising men and psychologists and the incentives which were involved were classified as mechanical or interest. Several of these devices frequently appeared in a single advertisement. Copies of the magazine were then given to a group of women who were told to read a certain article. Subsequently they were given a recognition test for advertisements in that magazine. The ten advertisements which were recalled with the greatest frequency were compared with ten at the other extreme which were recalled with the lowest frequency.

¹ Starch, D. *Principles of Advertising*, p. 521.

² Hollingworth, H. L. *Advertising and Selling*, p. 129.

A tabulation was made of the number of incentives of each sort in each of these extreme groups. The former had on the average 4.1 mechanical and 15 interest incentives, whereas the latter group had 5.3 mechanical and 5.7 interest. In the first group 78 per cent of the incentives were of the interest type and in the second group only 52 per cent, so that it appears that the advertisements which made the greatest impression on the readers of the magazine employed attention devices which were predominantly of the interest type. In another study 100 advertisements which had been unusually successful were collected.¹ An analysis of these revealed 34 advertisements which were comprised mainly of mechanical incentives, 44 which included mainly interest incentives, and 21 which were indeterminate.

These results are plausible. Although from a sheer attention-getting standpoint the mechanical device is satisfactory, it has that effect and no other. The interest incentive, on the other hand, not only secures attention but goes beyond and links the product with the person's other experiences, and may leave a memory trace which will be effective in recalling the advertisement or its details at a later time. The interest incentives, as it were, are double-barreled. The average advertisement, as indicated above, may include devices of both sorts. The implication of these findings is that it is inadvisable for the advertiser to omit interest-attention devices entirely from his copy because they do more than merely assault the sense organs. They arouse associations which may have a more lasting effect.

SUMMARY

Pictures speak a universal language, and often present at a glance what it would take a considerable amount of copy to describe. Appropriately labeled, they facilitate technical descriptions. Although it is known that prospects differ in imagery type and hence some of them should be more dependent on pictures than others, this fact does not help the advertiser, because he does not know which type of prospect is to read his copy. He must either design the advertisement for both types or else assume that the frequency of pictures in the editorial portions of the magazine is an indication of the pictorial requirements of the readers. Data are available showing marked increase of returns from advertisements when pictures were introduced.

¹ Adams, H. F. *Advertising and Its Mental Laws*, p. 326.

Observation of eye movements in the laboratory or behavior of pedestrians before a window display and experiments on subjects carried past poster boards all demonstrate that pictures of people have greater attention value than pictures of inanimate objects. The historical method corroborates this same point by showing an increase in the per cent of illustrated advertisements which contain people. It also shows a certain encroachment of pictures of men into the advertising pages of women's magazines.

As between half-tone reproductions of photographs and plates made from drawings, the former are being used with increasing frequency, and their superiority is demonstrated by experiments with dummy magazines and other recognition tests. The explanation lies in the greater naturalness and realism of the photograph. The drawing has an advantage in that the artist may idealize the subject, but this advantage is largely offset by the possibility of retouching the photograph. The latter may also produce confidence because the reader feels that he sees the product exactly as it is.

No difference is found between relevant and irrelevant pictures from the standpoint of catching attention, but when the subject is required to recall the product or the idea in the advertisement the relevant picture is far superior. Furthermore, the irrelevant picture may secure all the attention so that the reader misses the rest of the copy entirely. A picture which seems irrelevant but which has good attention value may be used, but it should be tied up promptly with the product in the initial portion of the copy. When the picture and the text are both relevant it is further important for them to harmonize. If they take the reader's attention in opposite directions an unpleasant conflict of attitude which may attach unpleasantness to the product ensues.

The use of pictures in advertising has shown a tremendous increase in the last forty years, but the size of the illustrations relative to the area of the advertisement has remained constant.

The incentives to attention discussed in preceding chapters may be classified as mechanical and interest incentives. The latter are shown experimentally to be superior. They not only attract attention but also form associations which will facilitate recall of the product on a later occasion.

CHAPTER XV

UNITY, LINE, AND FORM

HOLDING ATTENTION

THE topics just discussed were primarily concerned with methods for attracting the reader's attention. If the advertisement does not succeed in securing attention at the outset it is useless to proceed further. This process, however, is not the whole story. Attention is a total adjustment of the organism which facilitates the reception of stimuli and the appropriate responses. When reading a book or looking at a picture one's eyes are turned toward the page, the refractive mechanism focuses the stimulus upon the retina, the total bodily posture may be directed toward the object, and there may even be changes in breathing incident to the facilitation of perception of the object. The "complication experiment" in the laboratory shows the facilitating effect of the attentive attitude. A hand moves rapidly along an arc and the apparatus is adjusted so that a bell sounds at a particular point on the arc. The subject attempts to state where the pointer is at the instant the bell sounds. If his attention is directed toward the pointer, the effect of the bell as a conscious experience is delayed so that he indicates that the pointer went beyond the actual place at which the sound occurred. On the other hand, if his attention is directed primarily to the bell which he is to hear he seems to perceive it comparatively earlier. This experiment illustrates the way in which attention facilitates the perception of a stimulus.

Fluctuations in General. The adjustment of attention, however, is limited with reference to the time it can prevail. Normally there is considerable fluctuation in the process. This may be demonstrated in the reaction time experiment. At a "ready" signal the subject places his finger on a telegraph key and a short time afterwards a light flashes, whereupon he presses the key as quickly as possible. It is found experimentally that the length of this preparatory interval influences the speed of reaction. In a typical case when the preparatory interval was one second the reaction time averaged about .15 seconds. For a two-second preparatory interval

the reaction was .13. If the preparatory interval was lengthened to four seconds the reaction time increased again to .15. For eight seconds it was .17, and so on with a progressive increase in the length of the reaction time as the preparatory interval was lengthened. This result means that with a fore-period longer than two seconds the attention fluctuates so that the stimulus may occur when the subject is not adequately adjusted to the forthcoming light. The longer this preparatory period the greater the difficulty in keeping the attention constant and consequently the more inadequate the reaction.

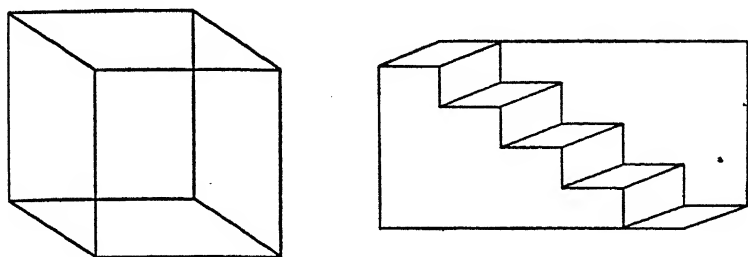


FIGURE 4

Another simple demonstration indicates the way in which this adjustment of attention fluctuates. The pictures shown in Figure 4 involve ambiguous perspective. The staircase on the right may be seen in normal fashion as though the observer were looking down upon it or as though he were underneath and looking up at it from the basement. If one watches it closely for a time it will apparently shift from one view to the other. It is impossible to hold it in one aspect more than a few seconds because of the unstable character of attention. Similarly the cube on the left may be seen from above or from below, and it shifts back and forth in the same way as the staircase. Unless the object is changing the observer is inclined to introduce a change himself by these shifts of attention. It is difficult to maintain the total adjustment of the organism to an object like this for many seconds.

Fluctuations in Attention to Advertisement. The same principle operates when a person is observing an advertisement. The color, the position, the size, or the picture secures the initial adjustment of attention. Unless the advertisement is constructed specifically for

the purpose of holding attention it is probable that the first glance of the reader will be the last. It is possible, however, to construct the advertisement in such a way that the attention will shift from one point to another within the advertisement rather than leave it entirely, or to employ some device to increase the total interest of the advertisement. It will be shown presently that the design or construction of the advertisement may contribute to keeping this favorable adjustment on the part of the reader by such simple expedients as controlling the eye movements. Fixating the eyes is an important part of the motor adjustment in the act of paying attention, and if these movements can be controlled artificially in the advertisement, attention is influenced accordingly. Another principle to be discussed operates through the medium of the feelings and emotions. If an experience is pleasant and agreeable a person is more inclined to prolong it. Pleasant stimuli secure continued attention, whereas unpleasant things lead immediately to a reaction which will get rid of the unpleasantness. In so far as attention is an adjustment which enables one to get more of the object, it is obvious that the pleasantness of the object will influence this adjustment.

UNITY

Structure. One technique for keeping the attention adjusted upon an advertisement for an adequate length of time is to give the layout a certain inherent unity. If the different parts are related so that the reader's attention may shift from one to another easily, he may remain adjusted to the advertisement in making these shifts rather than transferring his attention elsewhere. This unity may be achieved by a structure in which all the parts form a general design. This principle is especially effective when a number of faces appear in the advertisement, all looking in the same direction. In everyday life, imitation causes one to notice where another person has his eyes directed and to look in that same direction. This tendency operates when the person to be imitated is merely a picture of a man looking at the product. If several people in the advertisement are doing likewise the effect is enhanced. The same principle makes it inadvisable to portray a person looking away from the center of the advertisement toward an adjacent advertisement or the next page. Such an arrangement leads the reader away from the product on which it is desired to keep his attention.

Pointers. Another method of directing attention is by means of printed features which actually point in a certain direction. Just as we follow a person's gaze, so we follow his finger if he points, and in less personal fashion we are directed by an arrow or other device that has a directional aspect. If the reader's eye movements can be forced in the desired direction, his attention may be controlled, for eye movement is an important part of the total adjustment involved in an act of attention. An arrowhead or a line with a sharp member at the end directs attention in mechanical fashion, but still with some degree of effectiveness. In other instances a picture of the commodity itself is utilized in the process of pointing. If the product consists of pens or pencils, a pattern may be arranged with a number of them on the radii of a circle, all pointing toward the center where the trade name or some important selling point is presented. A violation of the above principle occurs in the advertisement for rifle cartridges which displays them all in the horizontal position, pointing out of the advertisement altogether. Sometimes instead of actual arrows or pointed objects a series of lines may connect important parts of the advertisement and hold them together. An advertisement for spark plugs showed a large picture of the plug at one side and straight lines leading from this to several small cuts of automobiles, airplanes, motor cycles, and stationary engines in which spark plugs were used. The interconnecting lines gave the layout an inherent unity.

Borders may be employed to keep attention in the advertisement. The supposition that once the attention has been directed inside the advertisement it will be difficult for the reader to surmount the border is based on the demonstrable resistance involved when the eye has to jump over a line. The principle may be demonstrated by presenting two straight lines of the same length, one of them plain and the other with short cross-lines extending its entire length. An uninformed subject will report that the latter line is longer than the former. As the eye sweeps along the line and meets these frequent obstructions, a little effort is involved in jumping over them. This greater muscular effort is erroneously interpreted as greater distance, and consequently the length of the line is overestimated. In the same way the border of the advertisement may offer an obstruction, and the reader may not make the effort necessary to transcend it.

The border is more valuable for a small advertisement than for a

full page. The latter is not competing so markedly with adjacent displays. Even so, the full-page advertisements in an earlier era used borders extensively. In 1900 about 80 per cent of the full-page advertisements in some media carried borders, but at the present time the percentage is less than 30. A few concerns still maintain a small conventional border on their full-page advertisements. There is no reason to suspect that such a border does any harm providing it is not too heavy or ornate, so that it actually takes attention away from the rest of the advertisement. For certain products it may even contribute a little artistic atmosphere appropriate to the commodity.

FEELINGS AND ATTENTION

The methods just discussed can be used to control the fluctuations of attention by mechanical factors in the construction of the advertisement. Another method for prolonging this adjustment of the organism for favorable reception of the advertisement involves the arousal of pleasant feelings. It is a familiar fact in everyday life that one tends to prolong a pleasant experience and to avoid an unpleasant one. The principle may be demonstrated experimentally. A subject in the laboratory makes movements with his forearm pivoted at the elbow and attempts to reproduce a designated angular distance with his eyes closed. If numerous readings are taken when he is in a pleasant attitude it will be observed that he moves the arm through a greater angle than is correct, whereas the reverse tendency is found if his attitude is unpleasant. The former condition involves increased use of the extensor muscles which are normally employed in reaching out toward a desired object. Similarly, in an experiment in which the subject grasps a dynamometer to record the strength of his grip, the pleasant or unpleasant character of attendant stimuli influences the results with the instrument. A typical group of subjects had an average grip of about 24 kilograms. When they smelled perfume the grip increased to 26, and when they smelled burnt hair or cheese it dropped to 22. The influence of the feelings may also be demonstrated in memory experiments. When the subjects studied ten nonsense syllables under standard conditions following the reading of either a pleasant or an unpleasant story, one and one-half more words, on the average, were remembered under the former condition. An extensive review of the literature on this

point indicates general agreement that items which are either pleasant or unpleasant are learned more readily than those which lack this element.¹ The superiority of the pleasant to the unpleasant from the standpoint of learning is not pronounced in this review, but the normal tendency to prolong pleasant experiences is an important consideration.

One of the most obvious ways in which to create a pleasant attitude toward the advertisement is to make it artistically attractive. This principle constitutes one justification of so-called "art for business' sake." There is some experimental evidence available to indicate that good art work is actually superior in attention or memory value to poor art work.² Eight colored posters advertising a brand of coffee, all in car-card size, were displayed in university classrooms during an entire lecture hour. At varying time intervals after the initial display members of the classes were asked to write a description of the posters they could remember. A group of art teachers and professional artists had previously agreed on the two posters which were best and the two which were worst from an art standpoint. In the experiment 83 per cent of the former were recalled and only 29 per cent of the latter when the test was given immediately. A day later the corresponding figures were 71 per cent and 17 per cent. After 10 days the percentages were 57 and 12, after 20 days 50 and 11, and after 120 days 24 and 3. The posters which had been selected by experts as more artistic obviously made a greater impression on the group of laymen participating in the experiment. These results are in accord with the preceding discussion to the effect that pleasantness prolongs attention. Artistic elements may contribute to that pleasantness.

LINES

It is not feasible in a work of the present scope to consider all aspects of esthetics and artistic composition. A few points may be mentioned, however, which bear on the advertiser's problems. One of these deals with the fact that different types of lines are associated with certain feelings and may thus be used to lend atmosphere to the product advertised. Books on esthetics are replete with lists of

¹ Cason, H. "The Learning and Retention of Pleasant and Unpleasant Activities," *Archives of Psychology*, 1932, 134, 196.

² Cf. Aust, F. A., and Harrison, R. S. *The Values of Art in Advertising*. Menasha Wis., Banta Publishing Co., 1932.

qualities suggested by different kinds of lines. For instance, the fine gray line is supposed to suggest delicacy and the fine black line precision and hardness, while the broad rough line carries an impression of homeliness and lends texture to the article. On that basis fine, gray lines might be used for advertising delicate lace, fine black lines for watches, and broad rough lines for camping supplies. Associations like the foregoing should not receive too much weight. Experimental evidence is lacking, and it is difficult to formulate a theoretical basis for them. In a few instances, however, certain qualities suggested by lines seem plausible and in some other cases experimental data are available. A few such cases will be discussed.

Direction. It is often asserted that vertical lines carry an atmosphere of simplicity, permanence, dignity, or rigor. This assertion has some theoretical plausibility because of association with towers and columns which rear themselves with a certain rigor and severity or with dignified persons who stand erect. The horizontal line suggests rest or quiescence plausibly enough because people frequently are seen resting in a horizontal position. The greater ease of eye movements in a horizontal direction may also be a factor. The diagonal line, in contrast to the horizontal or vertical is generally conceded to suggest action. When a person or animal is in action many diagonal lines are obvious to an observer, and an association of the diagonal with activity might readily be built up. Another principle which influences esthetic reactions is termed empathy. Etymologically this signifies "feel in" and denotes a tendency to project one's self into the object which he is contemplating. In looking at the picture of a landscape one feels himself into it and tends to do something such as walk among the trees. In the drama he may project himself into the situation and share the feelings of the persons on the stage or screen. Similarly, in looking at a mere diagonal line one may feel himself into the object, tip forward with the line and move so that he will not fall. If an object looks top-heavy the observer is inclined to jump in and, figuratively, push it back into position. Empathy might also operate in the attitude mentioned above with reference to horizontal or vertical lines. It should not be inferred that the observer necessarily goes through the motions described, but there may be a corresponding incipient motor adjustment.

Curves, in general, are conceded to be more pleasant than straight lines. It used to be thought that this tendency was due to the

smooth movement with which the eye swept along the curve. Photographs of the eye movements when looking at curves reveal that this is not the case at all. The eye fixates one portion of the curve and then takes a short cut across in a straight line to another point. It is probable that the mechanism of empathy rather than eye movements accounts for the pleasantness of curves. The observer feels himself into the curve, going along it smoothly without any obstruction.

Complicated Lines. Some efforts have been made to determine in more detail the feelings produced by different types of lines.¹ In one experiment the subjects were asked to draw lines which represented various feelings and some degree of unanimity was obtained. In a later experiment with five hundred subjects a limited number of lines was adopted, and the subjects had to select from a list the feelings which fitted those lines most appropriately. Three aspects of the lines were varied: the shape, curved or angular; the rhythm, slow or rapid; and the direction, horizontal, sloping up, or sloping down. Some typical lines are indicated in Figure 5. The results were analyzed with reference to these three variables or aspects of the lines for numerous qualities or feelings. A few of those on which the subjects showed the greatest agreement may be cited. "Sadness" is characteristically associated with a slow descending curve (G);² 86 per cent of the subjects take the curve rather than the angular arrangement. The slowest rhythm is likewise picked by 86 per cent, and the downward direction by 84 per cent. For "quiet," the subjects choose a slow horizontal curve (A); 97 per cent the curve, 85 per cent the slow rhythm, and 90 per cent the horizontal direction. "Lazy" is characterized by a slow descending curve (G) somewhat like "sadness," while "merry" and "playful" are suggested by a rising curve in medium rhythm. (Q) "Harsh" is indicated by an angular arrangement with a medium rhythm, and either horizontal or upward direction (D or R). "Gentle" is suggested by a slow horizontal curve (A), somewhat like "quiet." The foregoing were fairly consistent tendencies on which both experiments agreed. Other less well-established relations are the following: "agitating" — rapid rising angle (T); "furious" — rapid or medium rising angle (R or T); "dead" — slow horizontal or descending curve or

¹ Poffenberger, A. T., and Barrows, B. E. "The Feeling Value of Lines," *Journal of Applied Psychology*, 1924, 8, 187-205. Also Lundholm, H. "The Affective Tones of Lines," *Psychological Review*, 1921, 28, 43-60.

² Letters refer to those used to designate the different curves in Fig. 5.

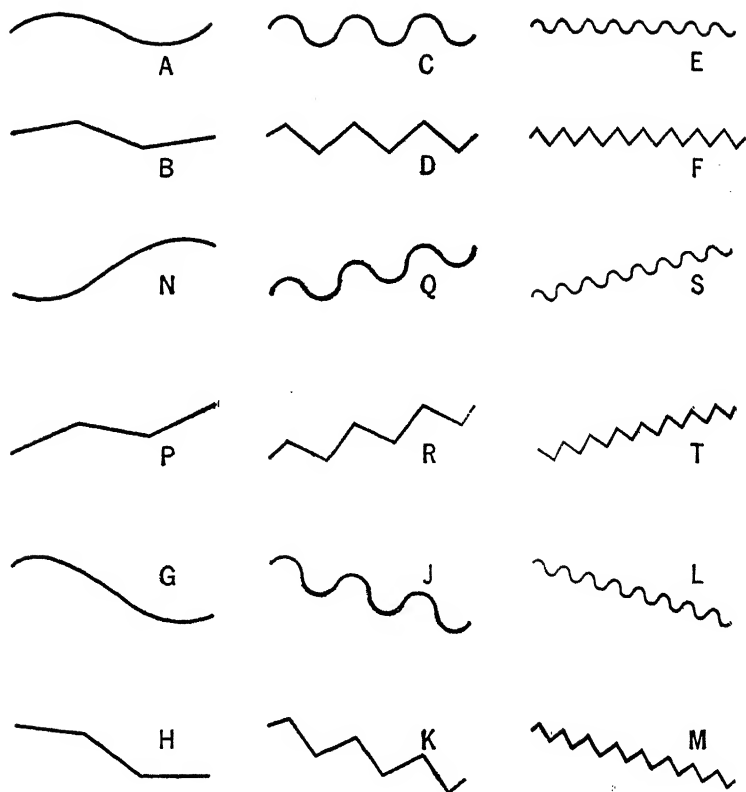


FIGURE 5

angle (A, B, G or H); "weak" — slow descending curve (G); "serious" — slow horizontal angle (B); "powerful" — medium rising angle (P). These last results were fairly consistent in the second experiment, but were not found in the earlier one in which the subjects drew their own lines, and thus should be discounted. It is also possible to analyze the results in order to show which of the three aspects — direction, rhythm, or form — are most important in suggesting any particular quality. For instance, for "sadness" it is the rhythm and the direction which are most important; for "merry" it is the direction; for "serious," the direction; for "playful," the direction; for "quiet," both the direction and the rhythm; with "agitating," the direction; for "gentle," the direction and also

to some extent the form; for "harshness," the rhythm and the form; for "weak," the direction; for "powerful," all three factors; for "dead" and "lazy," the rhythm; for "furious," the direction and the form.

The study by Hevener described earlier (page 260) contributes a little to the present problem. It will be recalled that the subjects were presented with water-color designs embodying eight masses separated by lines of various types, and matched them with adjectives which were grouped in eight classes. The most significant difference statistically between the curved and straight-line designs was in group 8, where the straight lines evoked the adjectives vigorous, robust, emphatic, martial, ponderous, majestic, and exalted.

The explanation of this tendency for certain complicated line arrangements to suggest various qualities is not entirely clear. Much of it is presumably due to the processes of association. When the subjects in such an experiment are called upon to introspect, they report such things as the ease of going down hill versus the effort of going uphill, the excitement which occurs when their journey along the line is interrupted by sharp obstacles, the greater ease of performing an activity, such as walking, in a slow rhythm, and the fact that a sleeping person or animal is likely to be in a horizontal position. Introspection such as this has not been obtained systematically enough to throw any fundamental light on the problem, but merely suggests that associations such as these have attached themselves to the various types of line. Whether these associations are intrinsic in the original reaction to the line or have been built up through experience cannot be determined with absolute certainty, although the latter seems probable. In childhood, for instance, one has seen objects going downhill and has also gone downhill himself, and in that way he has developed an association of slope and motion. Another factor which operates is the tendency toward empathy mentioned above. Suffice it to say that some of the qualities exist with sufficient uniformity so that the advertiser may find it profitable to utilize them in his layout. When the creation of atmosphere for the product is important, some contribution to this end may be made by selection of the appropriate types of lines.

CLOSED FORMS

Triangle. With closed forms similar problems arise. The triangle, for example, appears lively and suggests spirit and animation, particularly if it is resting so that it includes two diagonal lines. One obvious reason is that the diagonal lines of which it is composed suggest action (p. 290). Triangular displays would consequently be appropriate for an advertisement in which one desired to suggest liveliness and action, such as copy for sparkling beverages, lively music, or other items accessory to the more active types of amusement.

The square may carry a suggestion of solidity, combining as it does the stiffness of the vertical with the repose of the horizontal. If it is standing on its corner, however, the presence of the diagonal lines counteracts the effect mentioned and is likely to suggest action. If a figure is to look exactly square, account must be taken of the common illusion whereby verticals are overestimated. Given two lines of equal length, one horizontal and one vertical, the latter appears longer. This illusion is usually attributed to the fact that two sets of muscles are involved in turning the eyes up and down and only one set in turning them sideways. The greater amount of muscular experience involved in looking up and down a vertical line is interpreted to mean greater distance, because some of our spatial judgments are based on muscle sensation. If one desires to make an object look exactly square it is necessary to construct a rectangle with the vertical dimension some 3 per cent less than the horizontal.

Rectangle. The esthetics of rectangles raises a different type of problem, viz., the ratio between the two dimensions of the rectangle as influencing appreciation of it. In the conventional experiment a series of rectangles is prepared, all of the same area but ranging from a square to a rectangle with the length perhaps three times the width. Paired comparisons is the accepted method for this type of investigation. The rectangles are presented to the subject two at a time in all combinations and he indicates which of the two he prefers. A given rectangle is on the right as often as it is on the left in order to avoid any possible error due to preference for one position. When all the comparisons have been made the number of "votes" which a rectangle receives indicates its esthetic value, inasmuch as each one has had an equal number of chances to be chosen.

Numerous experiments of this sort show that a proportion in the neighborhood of 3 to 5 is the most pleasing. This ratio has been called historically the "golden section," a term which goes back to the fact that similar results are found with a vertical line divided at such a point that the sectioning is most pleasing. With horizontal lines the preference is complicated by other factors such as balance. This vertical 3:5 section was assumed to be the most perfect section and at that era gold symbolized perfection, hence "golden section." Detailed analysis of the experimental results fails to reveal an abrupt shift on either side of the "golden section." If the preferences are plotted against the proportions of the rectangle, the curve comes up gradually from each side to a high point at approximately the 3:5 ratio.

The results have a bearing on the use of panels in an advertisement. The question sometimes arises as to whether to make the panel square or rectangular, and if there is no reason to the contrary it would appear advisable to employ a rectangle with its dimensions conforming approximately to the golden section. This arrangement will be especially favorable if the commodity is one for which an attractive atmosphere is desired.

The advertiser sometimes is confronted with space which does not lend itself readily to attractive treatment. A single column the full length of the page is a case in point. A panel in appropriate proportions will take care of some of this space, but if the remainder is set solid the effect will not be pleasing. A possible expedient is to break the copy into smaller units which are rectangular and conform roughly to the desired proportions. Several paragraphs may be set in that way, with space between them, so that the type of each one forms a block of the appropriate dimensions. The outside dimensions of an advertisement may not approximate the golden section because of the format, but within the details of the layout it may be possible to conform to the results of the experiments mentioned above.

BALANCE

A principle which is widely used in artistic composition, and which if too seriously violated may adversely affect the reader, is balance. The most frequent arrangement comprises a mass on one side balanced against a mass on the other. A formal balance, however,

with two equal masses equidistant from the center is likely to be monotonous. Informal balance operates on the lever principle. The two objects are not exactly the same size, but the larger is proportionately nearer the center of the picture. It has been suggested that the attention goes first to the center of the picture and then starts out toward the objects. In one case the observer does not go very far but has a large mass to stimulate him when he arrives. In the other case there is a greater motor impulse or a greater degree of muscle sensation in getting out to the object which itself is somewhat smaller. The total effect in the two cases is equivalent.

It is also possible to balance something else against the mass. An interesting object at one side will balance a larger and less interesting object on the other side. The interest increases the attention value sufficiently to offset the competing size. Vista or perspective may be utilized in much the same way. If a large object is in the foreground on one side, an indication of perspective or distance on the other, such as a brook winding off toward the horizon, is enough to balance the larger mass.

Balance in a vertical direction involves questions of stability. A large object at the top with nothing balancing it toward the bottom creates a top-heavy effect like a pyramid standing on its point instead of on its base. This principle is not limited to items in a picture but may actually involve the larger items in the composition of the advertisement, such as the headline or the trade mark.

EFFECT OF ARTISTIC PRINCIPLES

Some of the foregoing considerations as to artistic principles may seem rather remote from the man in the street who is reading the poster boards or the magazine displays. An experiment was conducted to determine whether the average individual is at all sensitive to art values. A series of pen-and-ink sketches were prepared. Each pictorial subject was treated in five ways: (1) a perfect picture; (2) a violation of the principle of unity, with the picture split in two and with two centers of interest; (3) a violation of harmony — conflicting and irrelevant lines; (4) a violation of proportionality, for example, unbalanced; (5) a violation of congruity, for example, star-shaped flower beds in a natural landscape. Effort was made to introduce only one violation in each sketch and keep the other variables as nearly constant as possible. Various sets

were prepared in this way — landscapes, skyscrapers, peasant life, and some advertisements. The five pictures in a set were presented to a person simultaneously and he was requested to rank them on the basis of feeling alone.¹ One hundred students and sixty individuals from various walks of life participated in the experiment. Only half of the students were students of art. Combining the results of all individuals and all groups of sketches, the perfect study embodying no violation of artistic principles was selected for first place about 50 per cent of the time. Had it been a matter of mere chance, this picture should have been chosen in only 20 per cent of the cases. The violation of congruity was ranked in last place 42 per cent of the time. The other violations on the average fell between these limits. Results for the people who had had training in art were essentially the same as for the rest of the group. Wide variations were found, naturally, with different individuals and also with different sets of sketches, but the general trend is as indicated above. The results suggest that people are sensitive to good artistic values and select a picture embodying them more frequently than a picture violating some fundamental principle of art. Whether or not the person is actually conscious of what is wrong was not revealed in the experiment, but so far as practical results go this makes little difference. If it is possible to prepare advertising illustrations which people will like, some advantage is to be derived in the long run because of the previously mentioned effect of pleasurable stimuli on attention. One way to make such stimuli pleasant is to conform to some of the conventional principles of art.

SUMMARY

In view of the fluctuating character of attention, methods of attracting it to an advertisement must be supplemented with other procedures for holding the attention. Unity in the structure of the advertisement, such as a picture with several people looking in the same direction, contributes to this end. Pointers may direct the ocular fixation and thus control attention. Borders often help because once the eye is directed within the advertisement a little kinesthetic effort is required in order to jump over the border.

The arousal of pleasant feelings makes for prolongation of atten-

¹ Aust, F. A., and Harrison, R. S. *The Values of Art in Advertising*, pp. 45.

tion to the object producing those feelings. The superiority of posters embodying good art work has been demonstrated with reference to attention and memory value. Hence certain principles of esthetics and artistic composition are applicable to the design of advertisements.

Some characteristics of lines suggest feelings or qualities which may lend atmosphere to the product. The repose of the horizontal and the activity of the diagonal line have a plausible basis in association with resting or moving objects. Empathy plays a rôle in many esthetic attitudes.

Curves, in general, are more pleasing than straight lines. Experiments have been conducted in which lines were varied in three respects: shape, rhythm, and direction. Subjects were required to select from a list of feelings those suggested by the various lines and showed agreement on a few characteristics such as "sad," "quiet," "lazy," "merry," "playful," "harsh," and "gentle." It was possible also to note which of the three variables contributed most to the feeling in question.

With closed forms the triangle, inevitably embodying a diagonal line, suggests action, while the square carries an association of solidity. In rectangles an aesthetic problem arises in connection with the proportion of the two dimensions. Experiments by the paired comparison method indicate that the ratio of about 3 to 5, the so-called "golden section," is the most agreeable. This result has a bearing on the dimensions of a panel in an advertisement or on the desirability of breaking up a space which is extremely elongated.

A modicum of balance in the design of the layout should be observed in the interest of the aesthetic effect. Some of the possibilities include: formal balance between two equal masses, informal balance with a large mass near the center balanced by a smaller one more distant, an interesting object or vista balanced against a large mass, and finally vertical balance. Even the layman is esthetically responsive to artistic values, as revealed by an experiment on preferences in which were used sketches which violated some artistic principle, such as unity or congruity. This result substantiates the desirability of conforming to artistic principles in the construction of advertisements.

CHAPTER XVI

IMAGERY

IMAGERY TYPE

IN THE last chapter methods were discussed for holding the attention by arousing appropriate feelings through the use of devices which were included in the advertisement itself. It is also necessary to consider the possibility of feelings aroused not by the advertisement directly but by other things which it suggests. In daily life one is continually reacting to things beyond the mere objects of perceptual experience. Those objects remind him of previous situations and call up imagery which colors his present attitude. A photograph reminds one of the original person. A strain of music brings back memories of school days, and a single word such as "vacation" may call up by the association process a flood of mental imagery. The picture in the advertisement, the slogan, or even the trade name may arouse imagery in similar fashion and take the reader far beyond the magazine. The direction in which it takes him may have a bearing on the sale.

Note was made earlier of the fact that persons differ in so-called imagery type, that is, the facility with which they can call up images in the various sensory modes. Some can readily imagine how an object looks and others are more successful in imagining its sound. Unfortunately the advertiser cannot know the imagery type of the readers of a particular advertisement. He does know, however, that for many of them the text or the picture will arouse some imagery over and above the mere sensory impression given by the copy. Hence, in evaluating the advertisement, consideration should be given to the associations and images which it will arouse and whether those will be pleasant and appropriate to the product. In the following discussion the problem will be subdivided according to imagery produced by words and that aroused by pictures.

IMAGERY DUE TO WORDS

Phonetic Composition. The mere phonetic composition of a word quite apart from its meaning may carry some association and im-

agery with consequent pleasant or unpleasant feelings. Many persons find trade names such as the following agreeable: Ivory, Domino, Sapolio, Zuzu, whereas other names are distinctly less pleasing, such as Whizz, Tizz, Squibb. This difference in feeling is traceable sometimes to association with the actual meaning of the word, such as the whiteness of the ivory, but in other cases it is impossible to detect any such tendency by introspection, although the feeling is pronounced. The muscular adjustments in the vocal apparatus when making particular sounds influence the affective attitude toward those sounds.

Onomatopoeic words make obvious contributions to imagery. Words like "sputter," "chatter," "giggle," "hiss" imitate natural sounds and remind one of those sounds because of their subjective identity. Such words may be rather effective in advertising copy. A summer resort suggests that the reader get away from the "shriek of whistles, the bang and clang of the trolleys, to the restful vistas of green fields and babbling brooks." Certain phonetic families of words which are generally unpleasant may be noted. One group begins with "sn," such as sneer, snuff, snake, sneak, snoop, snitch. The tendency to wrinkle the nose when saying these words contributes to the unpleasantness of them. Another group begins with "gr," such as grub, grim, grudge, grab. Still other groups are: "sq" — squint, squirt, squirm, squab, squeak; "um" — glum, scum, slum, numb; "ump," — bump, dump, hump, lump; "imp" — scrim, limp, skimp; "unk" — bunk, hunk, flunk, punk.

This problem of the relation of affective tone to phonetic composition has been approached experimentally.¹ Fifty nonsense syllables comprising a vowel between two consonants were employed in a modified paired comparison method. Each syllable was compared with two others and likewise rated on a three-point scale as to affective value. A direct paired comparison method was prohibitive as the fifty syllables would have necessitated 1225 comparisons. Table 44 gives a few of the syllables which had the highest and the lowest rating. In each column the more pleasant words are toward the top. The general result noted by the author on the basis of analysis of all the words is that the sounds *l* and *r* and also to a lesser extent *t* and *d* are pleasing, while *g* and *k* and to some extent *v* and *f* are at the unpleasant end of the scale. In another less well-con-

¹ Jones, E. S. "Letters and Syllables in Publicity," *Journal of Applied Psychology*, 1922, 6, 198-

TABLE 44. AFFECTIVE-VALUE OF SYLLABLES *

Pleasant	Unpleasant
NEP	RAV
LON	GEB
DUR	VAB
PAZ	VUD
DES	GED
ZEF	GUR
TOR	GAK

* Jones.

trolled experiment in which actual words were used and subjects attempted to consider nothing except phonetic make-up, the one which proved best of all was "cellar door." This combination involves the *l* and *r* which were found to rank high in Jones's experiment. These demonstrated tendencies to experience a particular feeling in response to a particular consonant are difficult to explain. It has been suggested that they may be due to an association with the muscular patterns involved in pronunciation. The guttural sounds like *g* and *k* involve an elevation of the base of the tongue similar to that produced in a condition of disgust or when tasting a bitter substance. On the other hand *l* and *r* involve the tip of the tongue where sweet tastes predominate. It is possible that the lingual pattern in pronunciation brings up the feeling produced by similar patterns in connection with taste.

Difficult Pronunciation. Unpleasant feelings may be produced by the mere difficulty of pronouncing the word. In the case of a trade name this has the further practical effect that the prospect who wants the product may hesitate to risk embarrassment in attempting to pronounce the name and may consequently ask for some other brand. Samples of difficult pronunciation are as follows: Riz-la-x, Baume Bengué, Sempre giovine, Djer-Kiss, Ghiradelli. The last of these is the name of a brand of chocolates marketed under the name of the manufacturer. Mr. Ghiradelli is reputed to have said that the *h* in his name cost him a million dollars because of the difficulty in pronunciation and consequent hesitation to use the name when purchasing candy.

Literary Usage. Associations and imagery are aroused by certain words, largely owing to their literary usage. In romantic literature a horse is called a "steed," a thin girl is a "slender maiden," candy is "sweetmeat," and hogs are euphemistically "swine."

These words have been encountered primarily in that context of romance and chivalry. Consequently when they appear in an advertisement, they bring an atmosphere of gallant knights and fair ladies. The use of this principle is limited obviously to cases in which romance would be appropriate to the product. Nothing would be gained by featuring a "steed" hauling a new mowing machine, or "sweetmeats" that might be secured as a free premium by saving soap wrappers.

The actual meaning of the trade name offers numerous possibilities of subtle association and imagery. "Moon-Glow Silk" arouses pictures of something shimmering in the moonlight. "Mule Kick," "Bull Durham," and "Barking Dog" call up unpleasant imagery, although they do suggest the rough, mannish qualities which appeal to some smokers. "Pall Mall" and "Lord Salisbury," on the other hand, suggest royalty and peerage, and thus appeal to another type of smoker. Cod liver oil under its own name arouses unpleasant associations of fish carcasses, but when labeled Scott's Emulsion it becomes more palatable by virtue of less disgusting imagery. The word "hag" in the name of a coffee substitute may deter many a prospective customer by reminding him of toothless old women. If "Ivory Soap" had been called "Animal Grease Soap," the manufacturer would have gone out of business long ago. The copy writer evidently was oblivious to imagery when he described a paint remover which "does not change the surface to a sticky, slimy mass, but forms a soft, mushy sludge." A manufacturer of blankets, on the other hand, features light throws named "Reverie" and "Eventide."

Some trade names represent an obvious effort to suggest something pleasant or arouse appropriate imagery; for example, "royal," "premier," "onyx." In other cases definite effort is made to avoid unpleasant imagery that has become associated with a word by the substitution of some euphemistic expression. After "pool rooms" developed an unsavory reputation they were renamed "billiard rooms." The "second-hand" tire has become a "reconditioned" tire. The "plumber" is now a "plumbing contractor," and the ubiquitous "hot dog" because of unfortunate associations with lower animals is marketed as a "red hot." In England chewing gum has to be called a "sweet" because the word "gum" is associated with rubber. The propagandist or press agent is a "public relations counselor" and the "fat woman" a "stylish stout." Such usage

represents a commendable effort to dodge the undesirable associations that have become attached to a particular word.

It is possible, however, to go too far in the effort to employ expressions that have imagery value. The following were noted in a London shop window: "breathlessly smart," "ethereally light," "besieging," "blissfully warm," "invincibly chic," "desperately decorated." Phraseology that has unforeseen imagery may be used inadvertently. A razor manufacturer advertised: "Take the route to comfort blazed by other men," overlooking the fact that blazing a route literally, and also in the imagery of many readers, involves chipping or peeling the bark from trees to indicate the route. The reader does not want a razor that chips and peels.

Imagery in Description. In addition to the arousal of imagery by single words, more extensive possibilities arise in the use of a series of words, as in a description. A few instances must suffice to illustrate these possibilities. The following is from an automobile advertisement: "The vagabond days have come. One happy, mystic day in June, when the soft green of early summer is kissed by the golden sun . . . forget the town, its turbulence and fame, and bid the world good-bye. Idle the twilight hours away in a Jordon — light-footed, silent, flying free — companions, chums, camp-followers of spring. This nimble car of fascinating ease scuds through the large and solemn world, making one golden hour outmeasure a long, drab year." The imagery in this copy is inescapable. A travel advertisement: "Be a beachcomber in Hawaii this winter, with time out for bridge, and tea, and golf. Enjoy long, drifting days of delicious irresponsibility. Forget the cares of the busy world. Forget to go home. It may be the middle of winter, but flying fish skim over a warm sea of amethyst, indigo, and jade. Or if you come when the golden shower and flame trees bloom in spring, or summer, or autumn, you play golf where the thermometer never goes above 85 degrees." Such treatment is especially appropriate for travel advertisements as people are inclined to "dream," in terms of imagery, of the forthcoming vacation.

The following food advertisement contains subtle pictures — at least for the epicure. "People who understand food eat our large, gray-grained caviar in silence and with half-closed eyes, while the servants instinctively tiptoe about the room, unwilling to break the ecstasy. Those who only know the small, black-grained variety can hardly realize the wonders of the large gray-grained we import

from the Volga. The breath of the sea slumbers in its somber brilliance, and the delicacy of its flavor defies the written word. Vandals have been known to squeeze lemon juice upon it. But people with hearts tuned to beauty eat it unsullied by the shrillness of lemons."

Similes and metaphors by their very nature invite the imagery of the reader. A cheviot comes to "occupy as intimate a place in a man's affections as an old pipe." Or again, "Have you seen Fujiyama hanging like a white fan upside down on the blue sky?" A soap designed to keep the hands soft "nourishes the chiffon-thin outer skin." The chiffon metaphor conveys the picture. Another soap avoids "that three-times-a-day-in-the-dishpan look." A flooring material is reinforced "with an intimate cobweb of minute gossamer fibers." "Cobweb" tells the whole story. A certain brand of linoleum "hugs the floor." An automobile paint brings back its "showroom glory," or a room "speaks French with a provincial accent."

Special Sensory Modes. In many advertising situations one desires to arouse imagery in a particular sense department rather than mere pleasant imagery in general. An obvious case is an advertisement for a food product where olfactory or gustatory imagery is all important. The arousal of a visual picture would not sell ham or beefsteak so well as the following: "Just to smell it sizzling in the kitchen is enough to tell you that there is baked Ferris ham for dinner. When you slide it out of the oven it is even more tempting — a gem of succulent tenderness and running juices blanketed in a golden brown crust of crackling goodness. The delicious blending of sugar and salt with a deep tang of fragrant green hickory is the result of Ferris ten factors of flavor discovered half a century ago." In the same manner, a soup stock includes "baby lima beans, tender peas, tomatoes, sweet corn, parsley, and other delicate herbs, and just a touch of sweet red peppers to give a pleasing snappy effect to the whole combination." Tactual and thermal imagery may be aroused by the toothpaste slogan, "How cool my mouth feels!" and auditory imagery by "the piano of wonderful sonorous tone."

The following may not give the reader an exact notion of how the perfume smells but it does arouse appropriate images. "Rain, sudden and slanting and silver, enters the garden, brushes the honeysuckles, fingers the roses, lingers by the jasmine, and passing as swiftly leaves, souvenir to the sun, a more enchanting fragrance

than before. There is a perfume made to re-create these lovely moments of the garden, to number, like the sundial, only shining hours. Orchis is a blending of a hundred fragrant blossoms, tube rose and lilies, violets and acacia. Orchis is a melody woven of rare, sweet scents."

The radio advertiser is confronted with the problem of arousing visual imagery in connection with the whole program, as well as in the advertising, because he cannot, as in other media, supplement the copy with printed pictures. An experiment indicated that people who liked radio drama best were those who had the more vivid visual imagery.¹ The popularity of many of the programs which feature music such as was current twenty or thirty years ago may be traced to the imagery and memories aroused by such music. Persons in middle age hearing music which was popular in their heyday call up a wealth of association and live over again the first kiss in the moonlight, the Junior Prom, or the seaside romance. This conjuring of pleasant memories can be capitalized if the advertising script which follows fits in with this attitude. It is desirable in general to have the announcement conform to the rest of the program, particularly if the latter makes some definite arousal of imagery. During a symphonic program, the announcement should be dignified, whereas if the program is a "hot" band, it may be in lighter vein. Even the imagery aroused by a preceding broadcast may play a rôle. The writer has heard a religious broadcast followed immediately by an advertising announcement on the next period dealing with malt and supplies for making home brew. If the same listeners were present in both cases, they would find an unpleasant conflict between pictures of the Sea of Galilee and a tub of mash.

IMAGERY IN PICTURES

Imagery may be aroused by pictures in much the same fashion as by words. When selecting an illustration that has good attention value, the advertiser must not overlook the direction in which that picture is likely to take the reader through the process of association. The copy writer is not in such danger of stumbling upon unfavorable associations in the choice of words because he is generally picking them for their appropriateness rather than their attention value and

¹ Kerr, M., and Pear, T. H. "Unseen Drama and Imagery," *British Journal of Psychology*, 1931, 22, 43-54.

a word normally does not arouse associations in so many directions as a picture does. A picture with all its details may cut a good many ways, and, while the advertiser reacts to one part of the picture, the reader may react to another part.

Food Products. Instances of appropriate use of pictures in arousing imagery are so numerous in every magazine that it is scarcely necessary to cite specific examples. Attention should be called, however, to typical cases in which unfortunate imagery is evoked. A manufacturer of chocolates and cocoa ran informational copy showing how the commodity was prepared. He included a picture, which was appropriate enough, of a workman shoveling cocoa beans from a wheelbarrow into an oven. The association aroused was altogether undesirable for a food product. While at some stage of the process the beans may have been shoveled by a greasy workman in overalls with no particular detriment to the product because of the subsequent roasting, nevertheless that association is unpleasant and works against the food product. Another concern sold baking powder with the "absolutely pure" slogan and featured pictures of children who were presumably pure like the baking powder. Unfortunately in the efforts to present interesting pictures of children some were included which were not appropriate from the present standpoint. A child in the midst of a jelly roll, badly plastered from ear to ear, did not register appropriately in that context, and it was a far cry from the dirty youngster to the pure baking powder. Packing houses sometimes run copy showing the product in the course of preparation. This practice seems logical enough, but as a matter of fact people do not like to realize that they are carnivorous. They eat beefsteak rather than a "cow's hind leg" and do not like to have the latter aspect emphasized. The November copy with a picture of a turkey and an ax, either on his neck or just about to sever it, while appropriate and timely, arouses undesirable associations. A wealth of unfavorable carnivorous imagery is present in the advertisement to the effect that "they all go well with Clark's tomato ketchup" — with the accompanying picture portraying a hen, a goose, a turkey, a pig, a sheep, and a steer. For food objects it is much better to feature the product nicely served in a well-appointed dining-room. When the hermetically sealed package first came into vogue, one concern was eager to make the distinction between its present package and the old cracker barrel with reference to the impossibility of vermin getting into the package. They ran

a picture of the new sealed package with the vermin crawling on the outside of it, stressing the fact that the vermin did not enter the package. The difficulty was that they did enter the mind of the reader, which was just about as bad. A manufacturer of high-class sausages in putting out an advertising booklet sought an attractive picture for the cover and unfortunately selected a group of young puppies. A still more unfortunate instance is the following from an advertisement by a foundry: "Surgeons and butchers both cut meat; all foundries melt metal. This company is to the foundry what the surgeon is to the butcher." The accompanying illustrations were striking and the analogy was logical, but the unpleasant associations aroused by putting butchers and surgeons in the same sentence would annoy the reader so that he would not want any of the metal which was advertised.

The display of the product, quite apart from the printed advertising, should be considered from the standpoint of the present discussion. A bakery displayed its doughnuts in cellophane wrappers, hoping thus to arouse the food instinct. With the sugared doughnuts difficulty was encountered owing to the fact that after a short time they appeared soft and "messy." To counteract this difficulty the sugar was placed in a separate container within the envelope, so arranged that by pulling a paper ribbon and shaking the package, the purchaser could sugar the doughnuts. Thus favorable imagery could be aroused by the display, and those who desired the doughnuts sugared could achieve this end.

Occasionally an advertiser makes a conscious effort to select pictures which will carry the mode of imagery he wants. A case in point is that of the two Scotch terriers advertising a brand of motor fuel and oil.² The concern wished to present the notion of draining, filling, and then listening to the motor after the crank case was filled with the recommended oil. They first thought of having a man listening with a hand to his ear, but this would suggest deafness, which was unpleasant. They then considered a person with his finger to his lips, but that might suggest mystery, and there was no particular mystery about this product. Next was a person with a stethoscope listening to the motor, but that aroused unpleasant associations of physicians and illness. Finally they decided upon dogs listening, and also selected small ones to avoid any suggestion of viciousness.

² Vos, J. W. "Those Texaco Listen Dogs," *Printers' Ink*, April 9, 1931, 155, 10.

Special Sensory Modes. Pictures may be used in the same fashion as words to arouse imagery in a particular sense department that is appropriate. In the field of temperature the picture of an Eskimo is featured in connection with a brand of ginger ale. Copy for mentholated cigarettes runs pictures of daisies, the old oaken bucket, or of an old mill wheel in order to suggest coolness. For smell imagery there are pictures with the steam rising from the cup, or with a person holding the cake of soap to his nose, evidently smelling it. In the auditory field persons or animals are apparently listening, with a wrapt facial expression. The classical Victrola trade mark with the dog listening is one of the early instances. With reference to taste, pictures are included of persons eating and manifesting pleasure in the process. Incidentally the picture of a large, overweight individual with a dozen pancakes in front of him arouses the wrong association. Eating can be an unlovely process, but it should be treated with finesse in advertisements.

Adjacent Advertisements. The advertiser usually has little control over adjacent displays. In some instances his advertisement may be satisfactory, but the imagery aroused by neighboring ones may be unfortunate and spread to his. The writer has seen an advertisement for Jell-O alongside an advertisement for a cure of eczema. The unpleasant associations of the latter worked definitely against the former. In an experimental investigation¹ several advertisements for corn flakes on pages with different surroundings were evaluated as to feelings by the method of paired comparisons. The one which was best of all was surrounded by Cream of Wheat, candy, popcorn, a peanut business, and pork and beans. The most unpleasant one was surrounded by hosiery, furniture, false hair, wheel chairs, and mushrooms.

Some magazines make an effort to avoid incompatibility in adjacent advertisements. Allusions were made earlier to the subdivision of the magazine into sections devoted to home-making and style and beauty. In addition to the advantage pointed out above that the advertisements would not conflict in interest with the adjacent editorial material, there is the further result that the advertisements are less likely to conflict with each other from the standpoint of imagery.

Previous Atmosphere. A trade name may arouse certain imagery and association due to its use in some previous context. The Sta-

¹ Adams, H. F. *Advertising and Its Mental Laws*, p. 201.

dium Drug Store features that name because of its proximity to the stadium and tries to capitalize on the pleasant imagery aroused. Paris garters and Harvard cigars represent an attempt to employ the atmosphere already created by those names.

SUMMARY

The effect of the advertisement extends beyond the mere perceptual experience to the images and associations which it may arouse. These should be pleasant and appropriate to the product.

Words may produce imagery due to their mere phonetic composition. This is especially true of the onomatopoetic words. It has been demonstrated experimentally that the sounds *l* and *r* are the most pleasing, while *g* and *k* are the most unpleasant. Words which are difficult to pronounce may arouse unpleasant feelings, and an additional factor is that the consumer may hesitate to ask for the brand because of possible embarrassment in mispronouncing it. Associations and imagery are attached to certain words because of their literary usage, for example, in an atmosphere of romance and chivalry, and the actual meaning of a trade name often carries some imagery. Descriptive material in the text of the advertisement may derive much of its appeal from the pictures it calls up. Similes and metaphors deliberately suggest items outside of the advertisement. Imagery in special sensory modes may be aroused by appropriate phraseology — the taste of the food, the odor of the perfume, the coolness of the toothpaste, or the tone of the musical instrument. Radio has the problem of controlling imagery not merely in connection with the commercial announcement but in the rest of the program where no supplementary pictures are possible.

The illustrations in advertisements may likewise operate upon the process of association. A picture contains many details and may arouse imagery in numerous directions unsuspected by the advertiser. Even though a picture is relevant and logical, this does not ensure its desirability, for it may arouse unpleasant associations which will become attached to the product.

An advertisement may be unfavorably affected by imagery aroused by its neighbors. Some publishers make an effort to avoid this incompatibility by subdividing the magazine into portions appealing to different interests and allocating the advertising accordingly.

CHAPTER XVII

TYPOGRAPHY

THE fluctuating character of attention has been pointed out, together with the necessity for making the advertisement attractive so that the reader will prolong his attention to the copy. For much the same reason it is desirable to make the advertisement legible from a typographical standpoint. If the process of reading involves any appreciable difficulty the prospect will turn to something else. Attention, when scanning a magazine or newspaper, is particularly unstable, and it takes very little in the way of annoyance to lead the reader to turn the page. A number of features of typography conducive to legibility will be discussed, together with a few other aspects of typography which do not contribute to maintaining attention but nevertheless are germane to advertising problems.

METHODS

Maximum Distance. Various techniques of studying legibility are available. Inasmuch as reference will be made to numerous experiments which employ these techniques, it will facilitate the discussion to describe the methods once and for all at the outset. One of the simplest procedures is to place a specimen of letters or words at such a distance that the subject is unable to read it and then to move it toward him until he can decipher it. The only apparatus necessary is a rack on a carriage which can be moved along a track toward the subject. The illumination on the test object must be kept constant. The maximum distance at which the specimen can be read is taken as an inverse measure of legibility.

Minimum Illumination. In similar fashion it is possible to determine the minimum illumination necessary in order to read the specimen of type. It is placed at a standard distance from the eye and illuminated so dimly that it cannot be read. The intensity of the illumination is gradually increased until the subject can read the test object. The amount of illumination is calibrated and yields an inverse measure of legibility.

Focal Variator. A more complicated device makes it possible to throw a specimen in and out of focus without changing its size or brightness. The apparatus includes three lenses, one of which is stationary while the other two move reciprocally as a crank is turned. The image of the test object is thrown on a ground glass screen and the focus is controlled by turning the crank. Starting with the specimen considerably out of focus the image is gradually cleared until the subject can decipher it, and the scale reading showing the position of the lenses is taken as the legibility measure.

Short Exposure. A tachistoscope (p. 14) may be used in studying legibility. A falling screen or rotating sector is usually employed to expose the printed material for a fraction of a second. If the apparatus is calibrated to yield an accurate measurement of length of exposure a systematic experiment may be made to determine the minimum length of exposure at which a certain kind of material can be read by the subject. A more frequent procedure is to keep the exposure constant at something less than a tenth of a second and, using a considerable amount of material, to determine the percentage of the exposures on which the subject is able to report correctly what he sees.

Speed of Reading. A final method is based on the principle that more legible material can be read more rapidly. A crude procedure is to let the subject read a certain amount of material at his normal rate and time him with a stop watch. In a better method, which has already been described (187), some of the standard reading tests which were devised for school purposes are employed. These tests consist of a series of brief paragraphs in which one word is wrong. The subject reads the entire paragraph in order to locate the incorrect word, and the number of paragraphs he marks correctly in a given time is an indication of how rapidly he reads. When employing this method it is necessary to set up two forms of the test of equal difficulty but in two different kinds of typography, and then compare the results.

TYPE FACES

Maximum Distance. Numerous type faces are available for the advertiser's use. The type foundry have designed various "families" which differ in such respects as the heaviness of the stroke, variation of the width of the stroke within the letter, absence or

presence of serifs, and different shapes for the serifs. Many faces were designed with a view to artistic merit, but they undoubtedly have differences in legibility which are pertinent to the present discussion. It will not be profitable to compile the available experimental data for all possible type faces, but the effort will be to discover any general trends or principles involved in their legibility. Data for a few commercial styles of type as evaluated by several techniques are presented in Table 45. One of the earlier studies was made by Rothlein, using the method of maximum distance.¹

TABLE 45. LEGIBILITY OF TYPE FACES

	Rothlein Maximum Distance	Burt Focal Variator	Tinker <i>et al.</i> Speed Reading vs. Scotch Roman
Cheltenham.....	268	17.0	2.5
News Gothic.....	265		
Garamond.....			0
Bodoni.....		13.3	1.1
Caslon.....	250		1.3
Kabel Lite.....			2.3
Cushing.....	228		
American Typewriter.....	197		5.1
Cloister Black.....			16.5
Roman (avge.).....	214		No. of words
Italics (avge.).....	212		18.3
			17.8

Excerpts from her data appear in the first column and are in terms of the number of centimeters distance at which the words used as material could be read. The data in the table include only upper-case type, but quite similar results were found with lower-case. The distribution runs from an average of 268 centimeters for Cheltenham and 265 for News Gothic to 197 for American Typewriter.

Some of the type faces mentioned appear as follows:

Cheltenham	Caslon	Cloister Black
News Gothic	Kabel Lite	Old English
Garamond	Cushing	Scotch Roman
Bodoni	American Typewriter	

If one examines specimens of the faces in question it becomes obvious that the width or heaviness of the stroke is an important factor in the hierarchy. News Gothic, for example, has a heavy stroke,

¹ Rothlein, B. "The Relative Legibility of Different Faces of Printing Type," *American Journal of Psychology*, 1912, 23, 1-36.

and moreover all the strokes in the letter are of uniform width. Some of the faces occurring lower in the hierarchy have either a uniformly light stroke or else some light strokes interspersed with heavier. This principle is the one which stands out most distinctly in the experiments.

Focus. Other studies corroborate this same point. Two type faces, Cheltenham and Bodoni, were investigated with the focal variator technique.¹ The figures in the second column represent the average legibility of eighteen individual letters of the alphabet in upper case as measured for seven subjects. The entries in the table are scale readings for the carriage supporting the movable lens system. The larger number indicates that the specimen could be thrown farther out of focus and still be read. The superiority of Cheltenham is obvious. The difference was likewise statistically significant, being over nine times the standard deviation of the difference. Similar results were obtained with lower-case letters. An examination of these two type faces reveals that Cheltenham has fairly heavy strokes and heavy triangular serifs, whereas Bodoni has some almost hairline strokes and the serifs are very light straight lines at right angles to the main stroke. For instance, the letter N in Bodoni has a heavy diagonal stroke and two other light ones. As the letter was gradually brought into focus the diagonal stroke became visible, but the subject could not tell whether it was part of A, M, N, or W, whereas with the more uniform width of stroke in Cheltenham he did not have this difficulty.

The speed of reading technique was also applied to this problem, setting one form of the test in Scotch Roman and the other in several type faces. The data in the last column give the percentage by which the face indicated was inferior in speed of reading to the Scotch Roman. The first five in the column show very slight differences, and from a statistical standpoint they are not significant. With the American Typewriter, however, and especially with Cloister Black, the differences are significant. The last of these faces is ornate and complicated.² In another experiment Old English was read 35 per cent more slowly than ordinary type. It is possible that the speed of reading technique is not so sensitive to small differences as the other methods, but it has practical signifi-

¹ Burtt, H. E., and Basch, C. "Legibility of Bodoni, Baskerville Roman, and Cheltenham Type Faces," *Journal of Applied Psychology*, 1923, 7, 237-245.

² Tinker, M. A., and Paterson, D. G. "Style of Type Face," *Journal of Applied Psychology* 1932, 16, 605-613.

cance in that speed of reading is an aspect of legibility which is important for the advertiser. If a given type face does not retard the reader appreciably in his perusal of the text of the advertisement, other considerations may determine whether that type is to be used.

Italics and Roman. A comparison of the legibility of italics and roman letters appears at the bottom of the table. With the maximum distance technique the roman, averaging all styles of type, could be read at a slightly greater distance than the italics. In speed of reading, the absolute number of words read under the two conditions indicates that the roman is very slightly superior.¹ The difference, though small, is significant statistically. It should be noted that the materials used in the experiments cited were not large letters such as appear in headlines, but of the order of 10 to 14 points such as might appear in the text of an advertisement.

Miscellaneous. A few other variations in type face have been investigated. In accord with the principle mentioned above regarding the width of the stroke, it would appear that bold-face type should have an advantage. This supposition is borne out by experimental results with the maximum distance technique. Using a single style of type in ordinary and in bold face, the latter could be read at a 16 per cent greater distance. Averaging together all available results for bold face as against all results for light face, the differences were of about this same order of magnitude. Some data are available on condensed and expanded typography. In one instance the bold condensed was visible at approximately the same distance as ordinary type of the same face, whereas normal bold type was superior to the ordinary. The condensed aspect evidently counteracted the gain which might have been produced by the greater width of the stroke. Expanded type may be of especial value in such places as street cars where the reader is likely to see the display at an angle. Under these conditions the expanded type appears normal, whereas ordinary type would appear condensed. Except in the case of a few extreme faces the differences in legibility are not large. An experienced writer in the advertising field expresses the opinion that any improvement in typography which makes the advertisement more legible "will bring a maximum increase in returns of 5 per cent." Five per cent is not to be ignored.

¹ Tinker, M. A., and Paterson, D. G. "Influence of Type Form on Speed of Reading," *Journal of Applied Psychology*, 1928, 12, 359-368.

Two main points for the advertiser are brought out by these studies of type face. The first is that the heaviness of the stroke, and especially the uniform heaviness of strokes, in the letter are important factors in legibility. The other point is that difficulty is encountered in reading fancy type which has some extreme or unusual characteristic. Unless there is some good ulterior justification for it, such as the artistic effect or appropriateness for the product (*infra*), the advertiser should be reluctant to adopt a fancy or unusual style of type.

The historical trend with reference to uses of type faces was noted by analyzing an October issue of the *Saturday Evening Post* in 1921, 1925, 1929, 1930, and 1933. The percentage frequency of the various type faces in the body of the advertising text was computed. Caslon dropped from 39 per cent to 23 per cent during the period under investigation, while Bookman fell from 23 per cent to 3 per cent. Cheltenham also showed a decrease. Bodoni, on the other hand, jumped from zero to 32 per cent. Garamond rose from zero to 24 per cent in 1929 and then dropped back to 15 per cent. Gothic showed a slight increase. These trends presumably reflect something besides legibility. Bodoni and Gothic both showed an increase, and one of them is far more legible than the other. It is probable that the promotional efforts of the type founders or individual preferences of the copy writers are involved.¹

UPPER AND LOWER CASE

Letters. The text of most advertisements is printed in lower case, but with headlines the practice varies considerably. They are often set entirely in upper case, sometimes with the first letter of each word capitalized and sometimes with merely the first letter of the first word capitalized. A problem arises as to the comparative legibility of upper and lower case. It is advisable to consider the problem from two aspects, first, the legibility of individual letters and, second, the legibility of words. The psychological mechanisms involved in reacting to these two types of stimuli differ somewhat. In Rothlein's experiment (*supra*) upper-case letters were read at an average distance of 253 centimeters, whereas lower-case letters had to be moved in to 214 centimeters before they were recognizable,

¹ Giellerup, S. H. "What the Depression Years Have Done to the Ads," *Advertising and Selling*, August 30, 1934, 23, 25 ff.

a difference of 18 per cent. Similarly in the experiment with the focal variator technique, upper case was 20 per cent superior for Bodoni, 25 per cent for Baskerville, and 29 per cent for Cheltenham. In these experiments the comparisons were made between letters of the same point¹ set in upper and lower case. On this basis many of the upper-case letters were larger than the corresponding lower-case, which fact presumably accounts for the results. While some lower-case letters extend to the same height as the upper-case, many of them extend only halfway up. It would be almost impossible to set up an experiment in which the "size" was the same in both instances. If the lower-case font were blown up so that the small letter c, for example, was as large as capital C, certain other lower-case letters such as b would become larger than any of the upper-case. It would be possible to measure the total area for all the letters in the alphabet or perhaps the total length of the lines involved in all the letters and weight upper and lower case on this basis, but the procedure would be cumbersome and probably not worth while.

Words. In most advertising situations the legibility of words is more important than that of individual letters. Experiments on this aspect of the problem yield a quite different result. In a typical study 100 words were used, printed both in upper and lower case of the same point. They were presented one at a time in a tachistoscope with a constant exposure. Note was made for each subject of the percentage of the lower case and of the upper case which he perceived correctly under these conditions. No variable due to the length or difficulty of the word was present in the experiment because the same word appeared in both upper and lower case. With a typical group of subjects in such an experiment, 43 of the upper-case words were perceived correctly, as against 56 of the lower-case, a difference of 30 per cent. In another experiment a text was set in all upper case and all lower case and read by the subjects at their natural rate. They covered approximately 10 per cent more ground in the lower case. In another speed-of-reading test in which the wrong word in each brief paragraph had to be marked, the difference was 13 per cent in favor of the lower case, and this was statistically significant. In all these instances the upper-case and lower-case words involved in a given experiment were of the same

¹ The point system of typography figures 72 points to an inch, so that 36-point type would set two lines to an inch, 12-point type six lines to an inch, and so on when set solid, that is, with no leading between the lines.

point. Even though the lower-case letters were comparatively smaller on the average, the words were read more rapidly.

Reading Habits. These results may be explained satisfactorily in terms of reading habits. A person does not read every letter in the word, but perceives a few of them and fills in the rest from the context. This filling in is characteristic of much of the perception in daily life as well as of reading. Photographs of the eye while reading (*infra*) show that it does not move smoothly along the line, glancing at each letter, but fixates a point near the left for a brief interval, then jumps to another point, where it fixates again, and so on. Individuals differ in the number of fixations per line required, but the point of interest at the moment is that they do not look at every letter. This fact can be demonstrated further by presenting mutilated words in a tachistoscope. If certain letters are omitted or are incorrect, the subject may read them as though nothing had happened to them. He is obviously filling in the gaps from the context, reading by the general shape of the word or getting certain cues from the ascenders and descenders rather than noting the individual letters. The ascenders, incidentally, are more effective in yielding these cues than are the descenders. When the lower half of the word is covered in an experiment, the subject is more successful in reading it than if the upper half is concealed. Readers of advertising, like all other readers, have been trained to recognize lower-case words by these typographical cues. With upper-case words there are no ascenders and descenders, so that the pattern is less pronounced, and it is necessary to give more attention to the individual letters. This makes for slower reading and accounts for the experimental results.

An experiment by the maximum-distance method throws further light on this problem.¹ Single words in 10-point upper and lower case were used as material. The upper-case words were perceived at a distance of 239 inches on the average, as contrasted with a distance of 173 inches for the lower-case words. This result is apparently at variance with the preceding, but is understandable. With the maximum-distance method the subject is under no pressure as to time, and can if necessary attend to each individual letter of the word. It is not necessary for him to rely upon the shape of the word. This point is corroborated by further analysis of the present

¹ Tinker, M. A. "Influence of Form of Type on the Perception of Words," *Journal of Applied Psychology*, 1932, 16, 167-174.

data, which shows a comparatively slight difference between the maximum distance for upper-case letters and upper-case words and a much larger difference between the legibility of lower-case letters and lower-case words. The form of the word is obviously a more potent factor in the lower case. The value of upper-case or lower-case typography in the advertisement thus depends on the conditions under which it is to be read. If the main consideration is perceptibility at the greatest possible distance and speed of reading is of minor importance, as in poster-board advertisements, then upper case is indicated. A few words on a distant board, if a reader does not hurry, would be read in caps more readily than in lower-case letters of the same point size. Experiments do not reveal what would happen if the lower-case words were large, but as suggested above, it is very difficult to equate size by any procedure except the conventional point system.

Recurring to the problem of typography in headlines, the historical method indicates that in 1881, in typical magazines, about 85 per cent of the advertisements had the headlines entirely in upper case. By 1910 this had dropped to 43 per cent. In the *Saturday Evening Post* corresponding figures began in 1900 at 30 per cent and gradually dropped to 4 per cent by 1920. A subsequent tabulation yielded 8 per cent in 1926 and 21 per cent in 1930. Whether or not this backward swing is permanent remains to be seen.¹

LENGTH OF LINE

Record of Eye Movements. In preparing a layout for a large page the problem sometimes arises as to whether to set the text in columns or to run each line the full width of the page. It is conceivable that the length of the line may affect legibility, and that with long lines perhaps the reader may have difficulty in finding the beginnings of the successive lines. The extreme case is the line which runs the full width of a double-page spread. One systematic approach to this problem is to photograph the eye movements while the subject is reading lines of various lengths. The technique necessitates a projection lantern, an arrangement of lenses which focus a beam of parallel light rays on the cornea outside the pupil, and a moving film to photograph the beam of light which is reflected from the cornea. Inasmuch as the beam strikes the eye

¹ Kaiserman, J. J. *Historical Trends in Advertising*. M. A. Thesis, Ohio State University.

outside the pupil the subject does not see it, but as the eye moves the reflected image does likewise, in the same way that moving a mirror in the sunlight causes the image on the wall to shift accordingly. As the eye moves back and forth in reading, the image on the moving film is photographed. The temporal aspect may be recorded by interrupting the light with a rotating sector a standard number of times per second.

Analysis of such records of eye movements when the subject is reading shows that the eye does not move continuously (cf. page 291) but fixates a point and jumps to another point, where it fixates again, and so on. It is in these pauses that a person does the reading, and he sees very little between these pauses. The difficulty of seeing things when the eyes are actually moving can be demonstrated by looking into the mirror and trying to watch one's own eyes move.

This type of eye movement is found almost universally when the subject is reading easy narrative or material that is no more profound than that in the ordinary advertisement. When one is studying lessons, reading formulae, or engaged in some "heavy" material, the ocular response is different, but is not of concern in the present connection.

Experiments of this nature have been conducted when the subject was reading lines of different lengths. Various methods for analyzing the data have been employed, but one of the most frequent is to consider the number of fixations. If the eye stops more frequently in covering a given amount of material, the reader obviously obtains less for each start and stop and is thus less efficient. Another possibility is to consider the duration of the pauses. In some of his analyses Tinker uses what he calls average perception time per line; that is, the number of fixations multiplied by the average pause duration.¹ Such analysis indicates that a comparatively satisfactory arrangement is obtained when the lines are about $3\frac{1}{2}$ inches in length. This length approximates the typography of the average book. Another favorable point is found when the line is 2 or $2\frac{1}{4}$ inches long.

Speed of Reading. Further data bearing on the problem have been obtained by the speed-of-reading method. The results of several such experiments are summarized in Table 46. In an early

¹ Tinker, M. A. "Photographic Measurement of Reading Ability," *Journal of Educational Psychology*, 1929, 20, 184-191.

TABLE 46. SPEED OF READING AS INFLUENCED BY LENGTH OF LINE

	Words read per second	Per cent difference from standard	Per cent difference from standard
38 mm. 59 mm. 10 pt.	5.2	-7.3*	
68 mm. 6 pt. 70 mm. 10 pt.	6.1		-7.4*
72 mm. 8 pt. 80 mm. 10 pt.		Standard	-1.6 Standard
97 mm. 10 pt. 97 mm. 12 pt.		-2.8	-4.1*
114 mm. 10 pt. 115 mm. 14 pt.		-5.6*	-4.4*
127 mm. 136 mm. 10 pt.	5.7	-5.2*	
152 mm. 10 pt. 80 mm. 6 pt.		-6.4*	-6.2*
80 mm. 8 pt. 80 mm. 10 pt.			-5.2* Standard
80 mm. 12 pt. 80 mm. 14 pt.			-5.8* -6.9*

* Difference statistically significant.

experiment by Starch¹ lines 38, 70 and 127 millimeters in length were employed. The size of the type was not specified, but it was presumably around 10 or 12 point, as the experiment was designed to have a bearing on typography in the text of advertisements. The results appear in the first column of data in the table and are in terms of the average number of words read per second. The intermediate line of 70 millimeters length is superior.

A more detailed experiment was conducted by Tinker and Paterson.² In it was employed the technique described previously of having the subject read brief paragraphs with a wrong word in each paragraph. Several forms were prepared, all 10-point Scotch Roman but with the standard form comprising lines 80 millimeters long and with the variable forms of the lengths indicated.

¹ Starch, D. *Principles of Advertising*, p. 663.

² Tinker, M. A., and Paterson, D. G. "Length of Line," *Journal of Applied Psychology*, 1929, 13, 205-219.

The 80-millimeter line is superior in every instance, and the figures in the table represent the per cent by which the given lengths are inferior to the 80-millimeter length. The greatest inferiority is obtained for the two extremes of 59 and 152 millimeters. The figures starred in the table are statistically significant; that is, the difference is over three times the standard deviation of the difference. The optimal length, apparently, is somewhere between 59 and 97 millimeters, although it might not be exactly 80. The experimenters suggest that it is between 75 and 90, a conclusion which is not seriously at variance with Starch's results.

The question arises as to what is the optimal size of type with reference to length of line. This variable was investigated by a third experiment in which the same technique was used.¹ In this case the 80-millimeter, 10-point form was again taken as the standard, but the other forms were set line for line in different sizes of type. The results appear in the first five entries in the last column. The smaller type obviously would have a shorter line, as indicated in the left column of the table. Here again, the 80-millimeter, 10-point type line was best from the standpoint of speed of reading, and all but one of the other arrangements differed significantly from it, as indicated by the stars. These data should also be considered in the light of still further experiments in which the length of line was kept constant but the size of the type was varied.² The results appear at the bottom of the last column. The 80-millimeter 10-point form was significantly superior to all the other 80-millimeter arrangements. The significance of these experiments is that 10-point type, 80 millimeters long, is a very favorable arrangement from the standpoint of speed of reading. The size may be decreased slightly, shortening the line simultaneously, with comparatively little loss in effectiveness. The longer line, whether maintained in the same size of type or produced by setting the same words in each line but with larger type, will slow the reader down appreciably. It is also obvious that it is difficult to consider the different variables separately because they interlock.

Several explanations have been suggested to account for the ineffectiveness of the long line. If the lines are short it is easier to move from the end of one to the beginning of the next without

¹ Tinker, M. A., and Paterson, D. G. "Simultaneous Variation of Type Size and Line Lengths," *Journal of Applied Psychology*, 1931, 15, 72-78.

² Paterson, D. G., and Tinker, M. A. "Size of Type," *Journal of Applied Psychology*, 1929, 13, 120-130.

getting lost. Furthermore, when reading one line a person gets some of the content of the following one in the margin of his attention. He does not read it directly, but vaguely gets the meaning, so that when he does come to it the material is not entirely unfamiliar. These premonitions of meaning help speed up the reading by providing part of the context. If the lines are too long the premonitions obtained in this way are too remote from the line which the person is actually reading at the moment to impress his attention adequately. Note has been made in other connections of the difficulty of attending to incompatible items or those which arouse too widely different attitudes. Thus, when one is reading a long line, the content of the next one, which might ordinarily fit into the margin of the attention, will be so at variance with the present attitude that it will have little effect.

Turning to the advertising implications, the copy writer may be tempted to run the advertisement the entire width of the page even in a large format. The foregoing results would indicate that such an arrangement is undesirable, and that legibility would be increased by setting the text in two columns.

SPACE BETWEEN LINES

Experiments. In the experiments just discussed, the type was set solid. Type is cast with the base extending a little above and below each letter so that when set solid there is an appreciable space between the lines. It is a very common practice, however, to put some additional lead between the lines. This lead is gauged in terms of the usual point system; that is, 1-point lead is $1/72$ of an inch. Scientific experiments on the effect of leading are scarce. In one of them the familiar speed of reading technique was employed, but it was limited to 10-point type and lines 80 millimeters in length. The standard was set solid and compared with 1-, 2-, or 4-point lead in the other forms of the test. These results appear in the first column of figures in Table 47. The 1-point lead produced an insignificant change. With 2-point lead the subjects read on the average $7\frac{1}{2}$ per cent more rapidly, and with 4-point lead 5 per cent more rapidly, than they read the standard. Both of these differences were statistically significant, as is shown by the asterisks. The only conclusion warranted is that with 10-point type, 2-point lead is the optimal size from the standpoint of speed of reading.

TABLE 47. PER CENTAGE SUPERIORITY OF LEADING TO SOLID IN SPEED OF READING

Pts. lead	10 pt. type	12 pt. type	6 to 8 pt. type
$\frac{1}{4}$			0.5
$\frac{1}{2}$			-1.3
$\frac{3}{4}$			-0.3
1	1.3		-1.8
2	7.5*		
3		5.4	
4	5.0*		
6		5.8	
7		11.3	
8		4.2	
9		-0.8	

* Difference statistically significant.

In another experiment passages in 12-point type with various amounts of leading were employed and the time required to read them orally was measured, with length, of course, constant. The data appear in the next column of the table and give the percentage by which the arrangement indicated was superior in speed to the solid type.¹ Data are not available as to whether the differences are significant statistically. The greater speed of reading occurs with 7 points of lead, although 3, 6, and 8 also show some superiority to the solid arrangement. Going as far as 9 point produces an insignificant loss. Bentley also experimented with approximately 9-point and 6-point type, but the results cannot be compared with the others because the increase or reduction in size was obtained photographically rather than in conventional fashion.

Selections from a familiar book were set up in approximately newspaper-column size with leading of one point or less.² Three hundred subjects participated in the experiment, and read sixteen passages with a standard time limit. The scores were the average number of words read in one minute. Averaging all cases in which no lead was involved, all those in which one quarter point lead was used, and so forth, the percentages in the last column were obtained. For instance, the $\frac{1}{4}$ point was 0.5 per cent superior to the solid and the $\frac{1}{2}$ point was 1.3 per cent worse than the solid. The differences are very slight. The experimenter concluded that the context played a bigger rôle than the leading in his investigation. Further analysis

¹ Bentley, M. "Leading and Legibility," *Psychological Monographs*, 1921, 30, 136, 48-61.

² Hovde, H. P. "The Relative Effect of Type, Leading and Context," *Journal of Applied Psychology*, 1929, 13, 600-629; also 1930, 14, 63-73.

fails to reveal any definite tendency for the effect of leading to be more pronounced with the smaller than with the larger sizes.

Newspaper Experiment. A large metropolitan paper increased the type in its news columns from 7 to 7½ point but kept it on the same base. Some experiments were conducted in which several hundred subjects read selections in the two styles of type with time limits and with the content of the passages systematically changed so that a given sports item, for example, would be read in 7½ point about as frequently as in 7 point. The net difference was only 3 per cent on the average, and was not significant from a statistical standpoint. The publishers thought that the larger type would increase legibility, but inasmuch as they did not enlarge the base, the lines were crowded more closely together, and this fact presumably offset any gain which may have been produced by the increased size of the actual letters.

Telephone Directory. It is sometimes suggested that the space between the lines is more critical with small than with large type. One investigation brought out in dramatic fashion the effect of leading with small typography.¹ A metropolitan telephone directory was becoming unwieldy and the possibility was considered of decreasing the size of the type in order to save space, cost of paper, and inconvenience for the subscribers. An experiment was conducted by setting typical directory pages in different typographical arrangements, having the subjects find designated names of subscribers and write down the corresponding telephone numbers. Note was made in each instance of the time required. The arrangement finally adopted was one in which smaller type was employed but one point of lead was placed between the lines. Under these conditions it was possible to get about 25 per cent more names on a page, and the actual legibility was *increased* 13 per cent.

Problems of leading have not been studied so exhaustively as their importance warrants. The results cited suggest that for a given size of type there is an optimum spacing between the lines from the standpoint of legibility or speed of reading. In the experiment which was most rigidly analyzed from the statistical standpoint, 2-point lead for 10-point type proved optimal. Psychologically it is desirable to have sufficient space between lines to avoid actual interference with discrimination of the letters, but also to have the

¹ Baird, J. W. "The Legibility of a Telephone Directory," *Journal of Applied Psychology*, 1915, 1, 30-37.

lines sufficiently close to permit the reader to get premonitions of meaning in the margin of his attention.

SURFACE OF PAPER

In connection with the legibility of advertising, consideration should be given to the surface on which it is printed as well as to the typography. The most frequent limitation from the standpoint of paper is the necessity of employing a relatively smooth surface for fine-screened half-tones. Such half-tones on news print or on an antique stock will be unfavorably affected because of the tendency of the dots to run together. Glossy or dull-coated papers have been adopted for most magazine advertising for this reason. On the other hand, authorities on typography state that type appears better on an antique paper. A few experiments which bear upon this problem will be mentioned briefly. In one of them the speed of reading technique with the short paragraphs and one wrong word in each paragraph was used. In the first experiment one form of the test was always printed on white glossy paper, whereas in the other form dull-coated and antique finish in both white and ivory (or India) were used.¹ When appropriate corrections were made for the comparative difficulty of the two forms, the results were entirely negative. None of the surfaces investigated showed a speed of reading which differed significantly from the glossy white. So far as this experiment goes, surface and yellowish tint of the paper did not influence speed of reading to a significant degree.

In the other experiment five-letter words were printed on eggshell (a buff paper), artisan's enamel (with a moderate gloss), and flint enamel (with a high gloss).² The maximum distance technique was used. When eggshell was compared with artisan enamel, the average distance was practically identical, 145 centimeters. The difference between eggshell and flint enamel was less than 2 per cent and of no statistical significance. Eggshell, flint enamel, and artisan's enamel were also used in a speed of reading experiment. The results were negative, and no significant differences in legibility were found.³

¹ Stanton, F. N., and Burt, H. E. "The Influence of Surface and Tint of Paper on the Speed of Reading," *Journal of Applied Psychology*, 1935, 19, 683-693.

² Webster, H., and Tinker, M. A. "The Influence of Paper Surface on Perceptibility of Print," *Journal of Applied Psychology*, 1935, 19, 145-147.

³ Paterson, D. G., and Tinker, M. A. "Printing Surface," *Journal of Applied Psychology*, 1936, 20, 128-131.

The techniques described did not isolate the possible effect of fatigue due to specular reflection which might develop if a person were reading for a considerable time. It is conceivable that the reader might hold the magazine in such a position that this reflection would detract from his efficiency. It is probable, however, that he would be aware of the difficulty and would hold the magazine in some other position. This tendency toward fatigue was presumably involved during the experiment on the speed of reading. According to the present experiment the surface of the paper does not play an important rôle in legibility.

UNUSUAL ARRANGEMENTS

In the interest of novelty, layouts are sometimes made with a very unusual arrangement of type. If such procedure entails a high degree of illegibility, its value is questionable. Advertisements have been printed in which the words read uphill or in a series of concentric semicircles so that the reader actually had to tilt his head. The winner in a "worst advertisement" contest was one in which the type ran diagonally through a cut of an electric lamp so that some of the letters were tangled in the filaments. Another practice which is fraught with danger is that of making the lines of different lengths in the interest of some particular pattern. Such an arrangement breaks up the ordinary reading habits and leads one to consider a line at a time, somewhat as he does when reading verse. In such a case the individual line should be somewhat complete as to meaning, rather than ending in the midst of an idea. This point may be clarified by an example from an actual advertisement. The first of the following excerpts is the actual copy as printed, and the second is the more desirable arrangement, which does not break up the meaning so badly.

Style with us means beauty plus
 A dash of
 Daring — the type
 Of clothes that appeal to young
 Women of spirit and
 Taste

Style with us means
 Beauty plus a dash of daring —
 The type of clothes
 That appeal to young women
 Of spirit and taste

APPROPRIATENESS OF TYPE FACES

Before leaving the consideration of typography, mention should be made of the appropriateness of different type faces. Just as different lines are found to suggest various qualities or arouse different feelings with some degree of uniformity (p. 291), it is conceivable that type faces may carry different suggestions of quality or may be particularly appropriate for certain products. In an investigation of the problem a number of specimens of common type faces were presented, together with ten designated qualities or commodities, and the subjects were required to match the two kinds of material.¹ Some typical results are as follows: Cheapness was frequently characterized by bold Gothic type — a heavy black letter with no embellishment.² Dignity, on the other hand, was more vividly expressed by Old English type. Strength, again, was suggested by Gothic; Typoslope, similar to italics, was judged most appropriate for jewelry and perfume, and least appropriate for automobiles and building materials or for suggesting strength and cheapness. Another fact brought out in the experiment was that certain styles of type are more all-round in general appropriateness. Caslon and Bodoni, for example, have a fair degree of appropriateness for quite a number of qualities, whereas Gothic and Typoslope are more specific in suggesting only very few qualities. The authors also note certain correlations between preferences. Jewelry and perfume, for example, correlate highly; that is, the styles of type which are most appropriate for perfume are likewise most appropriate for jewelry. High correlations are obtained, similarly, between coffee and jewelry. Dignity correlates rather highly with jewelry.

Another study broke down the problem, not according to the commercial type faces but according to general characteristics such as bold, italic, expanded, or large in comparison with their opposites. The technique was similar to that in the preceding experiment, requiring the subject to select from a series of specimens the type which he considered would be best for the product or which most definitely suggested a certain feeling.³

¹ Poffenberger, A. T., and Franken, R. B. "Type Face Appropriateness," *Journal of Applied Psychology*, 1923, 7, 312-329.

Cf. also Schiller, G. "An Experimental Study of the Appropriateness of Color and Type in Advertising," *Journal of Applied Psychology*, 1935, 19, 652-664.

² Compare specimens, p. 312.

³ Davis, R. C., and Smith, H. J. "Determinants of Feeling Tone and Type Faces," *Journal of Applied Psychology*, 1933, 17, 742-754.

Table 48 gives some excerpts from a much larger table. An entry in the body of the table means that the characteristic indicated was selected as appropriate for the product at the left of the row. A blank space means that the characteristic involved in the given column showed no consistent trend for the products in question. In

TABLE 48. CHARACTERISTICS OF TYPE APPROPRIATE FOR PRODUCTS*

Product	1	2	3	4
Radio.....	Bold		Expanded	Large
Cigarettes.....			Regular	Large
Perfume.....	Non-bold	Italic	Regular	Small
Golf Clubs.....	Bold	Non-italic	Expanded	Medium
Beauty.....	Non-bold	Italic	Regular	Medium
Masculine.....	Bold	Non-italic	Expanded	Large
Feminine.....	Non-bold	Italic	Regular	Small
Safety.....	Bold	Non-italic	Condensed	Large

* Davis and Smith.

advertising radios, for example, the subjects judged that bold face was superior to non-bold; they had no particular preference regarding italics, but found expanded and large type also appropriate.

The explanation of these results is not entirely clear. It is possible that something in the shape of the type face actually carries the atmosphere because of some innate tendency. It is more probable, however, that preferences for and reactions to type faces have been acquired through experience. Old English, for example, has frequently been seen on imposing dignified documents and thereby acquires an association with dignity. Whether these associations are innate or acquired need not concern the advertiser, as long as they exist. Neither should the advertiser be concerned with minute differences in typography such as only a printer would notice.

One other associative aspect of type face should be mentioned, namely the possibility of conveying meaning by some unusual arrangement of the type. This point was mentioned in the chapter on novelty (p. 231). In the headline "Vibration," for example, the letters may be somewhat blurred as though they were vibrating. If speed is involved, streaking the letters as though they were moving and leaving a trail of dust behind them may carry the appropriate association. If something is said about expansion and contraction the letters may be spread apart in the former case and crowded together in the latter. These techniques would be useful only in isolated instances.

SUMMARY

Legibility of the advertisement is conducive to sustained attention because, if the process of reading involves any difficulty, the prospect turns to something else. Commercial families of type with wide or heavy strokes and especially those with uniformly heavy strokes are most legible. The results are more pronounced with the maximum distance technique than with speed of reading. Roman is slightly superior to italics and bold face is more legible than ordinary type. Fancy and unusual styles of type should be avoided except where artistic demands or atmosphere warrant their use and the amount to be read is comparatively small.

Upper-case letters are more legible than lower-case of the same point. This finding reflects the larger average size of the letters. With entire words, however, the tendency is reversed, and lower case is superior, even though the average size of the letters is smaller. The result may be explained by the normal reading habit of noting the general shape of the word or picking out certain landmarks and filling in the gaps from this context. Lower case, with the ascenders and descenders, affords more of these landmarks. Except in displays where the prospect can scrutinize each letter at leisure, it is desirable to use lower-case words in the interest of rapid reading.

Photographs of eye movements during reading indicate that the minimum amount of starting and stopping occurs with lines about $3\frac{1}{2}$ inches long and also with lengths of 2 to $2\frac{1}{4}$ inches. Speed-of-reading tests with 10-point type reveal that lines 80 millimeters in length are the best. In fact, this arrangement is excelled by none of those investigated by varying the size of type and length of line. The size may be decreased slightly with a simultaneous shortening of the line, and no appreciable loss in effectiveness will occur. A longer line, either in the same or somewhat larger type, tends to decrease the speed of reading. One reason for the inferiority of the long line is the difficulty of finding the beginning of each succeeding line. Another reason is the absence of the premonitions of meaning obtained from succeeding lines in the margin of attention.

Scattered experiments on the effect of leading suggest that for a given size of type there is an optimum space between lines. The most rigidly analyzed data on this problem indicated a superiority of 2-point lead for 10-point type. Leading is perhaps more important with small type. A related problem is that connected with the

printing surface. The speed-of-reading technique showed no significant difference between antique, dull-coat, and glossy surface. Unusual arrangements of type, such as diagonal or circular, should be avoided in the interest of legibility. If lines of different lengths are mixed for the sake of some pattern, care should be taken to have each line somewhat of a unit from the standpoint of meaning.

Type faces vary in their appropriateness for certain commodities or in suggesting certain qualities. Cheapness is suggested by Gothic and dignity by Old English, for example. Certain faces are more all-round in their suitability and less likely to call up inappropriate associations if used for a wide range of products. On rare occasions some particular meaning may be conveyed by unusual typography, such as blurred letters in a headline about vibration.

CHAPTER XVIII

MEMORY AND ASSOCIATION

IN PREVIOUS chapters methods were discussed for inducing the prospect to buy, securing his attention, and keeping his attention. Another important consideration is his memory. Even though he has observed the advertisement and become interested in the product so that he is favorably disposed, it is further necessary to make him remember the trade name and perhaps the sales message until such time as he is in a position to buy. Seldom does he put on his hat after reading the advertisement or listening to the radio program and dash to the drugstore for a tube of toothpaste. He usually waits until he has been out for a day or two and then purchases it at his convenience. It is a question as to whether the message about the toothpaste with which he was stimulated a few days previously has persisted to the extent that he will purchase that particular brand, or whether he will be influenced by some chance factor in the store display or by some previous buying habit. Consequently, it is worth while to consider the principles of memory as embodied in the advertising situation.

PRINCIPLES OF ASSOCIATION

The most important aspect of memory as it affects the advertiser involves forming an association between the need and the product which will satisfy that need, or between the commodity and the name of the special brand which one is promoting. It is not sufficient if the prospect merely remembers that he saw an attractive advertisement for toilet soap, or recalls the picture in the advertisement; he must remember the name or some feature whereby he can identify that particular brand when he enters a store. Certain fundamental principles of association thus are pertinent in the present connection.

Contiguity and Similarity. Certain "laws" of association have been current since the time of Aristotle. The principal one deals with the fact that if two experiences have been contiguous the subsequent reinstatement of one is likely to bring back the other. The items "two times three" and "six" are presented together to the

pupil so many times that the former inevitably suggests the latter. In the same way "Ford" suggests "automobile" and "Remington" suggests "typewriter" to many persons because the words have been experienced contiguously. Since the advertiser is interested in forming an association on the part of the readers between a commodity and his particular brand, it is necessary to present commodity and brand together repeatedly so that this principle of contiguity may operate. Another familiar principle is that of similarity. One experience may call up through the process of association some other which is similar. A photograph reminds one of the original person who posed because of similarity in the two configurations. In the same way "Pepsicola" may be associated with "Coca Cola" because of similarity or partial identity in the name. This principle has a bearing on the selection and infringement of trade names.

It becomes necessary to supplement these general laws of association with some subsidiary principles or conditions. According to the principle of contiguity, if the word "cigarette" is mentioned the listener should simultaneously think of a dozen different brands because he has experienced all of them in connection with the word "cigarette." As a matter of fact, he thinks of some one brand, although the others may come later if he continues in that field of discourse. When entering a store to purchase a commodity one does not think of all the corresponding trade names, although he has experienced them previously in connection with that product. Other principles are necessary, obviously, to explain why a particular one of the contiguous impressions has an advantage over the others.

Recency is one such principle. In everyday life one can remember the things of yesterday more readily than corresponding details for last week. The process of forgetting begins immediately after an experience, and the more recent things have had less opportunity to be forgotten. Conventional laboratory experiments, such as the classical ones of Ebbinghaus in memorizing nonsense syllables, show the effects of recency. The technique involves going through a list repeatedly, attempting to anticipate each word in the series, and noting the number of promptings necessary before each syllable can be correctly anticipated. Table 49 shows the number of promptings necessary for nonsense syllables in a series of ten. Whereas upwards of twenty were required in the middle portion of the series, only five were necessary for learning the last word which had the advantage of recency.

TABLE 49. PROMPTINGS WHEN LEARNING NONSENSE SYLLABLES *

Position in Series	Promptings
1	0
2	3
3	6
4	9
5	23
6	24
7	31+
8	25
9	23
10	5+

* Ebbinghaus.

In another case the subjects associated colors and numerals in pairs and later when the color was presented were required to give the corresponding numeral.¹ Whereas the correct answers were given about 26 per cent of the time for items in the middle of the series, the very last pair was recalled in 54 per cent of the instances. In a similar experiment on associating syllables with numerals the percentage recalled in the middle of the series was 17, and for the last pair 82.

In the same way the reader of advertisements is more likely to recall the products which he has seen advertised recently. If he reads them in the morning paper on the way downtown, the trade names involved will have an advantage over competing brands during shopping. One of the advantages of advertising cards in the street cars and subways lies in the fact that the reader may go into the store immediately after leaving the car. Featuring a picture of the package in the car card facilitates recognition of the package in the store a few minutes later. In evaluating the comparative merits of newspaper and magazine advertising, the point is often made that in the former the interval between reading the advertisement and purchasing the commodity will be shorter, thus allowing this principle of recency to operate.

Primacy is a factor which is correlative with recency. The first of a series of stimuli often leaves a strong impression. In the experiments on learning nonsense syllables mentioned above (cf. Table 49), the initial syllable in the series required no promptings. In the amnesia which often occurs in old age some of the last items to fade from memory pertain to childhood. Many persons can still

¹ Calkins, M. W. "Association," *Psychological Monographs*, 1896, 1, no. 2, pp. 1-56.

testify to the pronounced memory value of their first day in a particular school, the first experience in an office, the first ocean voyage, or the first romance. Note was made earlier of the value of the initial as well as the final pages in a section of advertising in a standard magazine (p. 209). The advertiser has less control of primacy than of recency. Occasionally, by means of the children's radio programs he may produce the initial associations between a product and his brand before the child is old enough to read the printed advertisement. With adults, at least, it is more difficult to employ the primacy effect.

Vividness. The vividness or intensity of the experience at the time the original objects were presented contiguously constitutes another factor which will make one association more likely to arise than another. This principle comes out clearly in experiments where a stimulus word is given and the subject responds with the first associated word. When he is questioned as to the sources of this association very frequently it becomes obvious that the conditions under which the association was originally formed were vivid. The stimulus word "fire" to one person may suggest furnace, but to another it recalls details of some conflagration in which he was actually involved. That experience, being much more vivid than his daily chores in the basement, has formed a stronger association. If a person attempts to recall the earliest events in childhood he usually reports something which involved a severe punishment or an accident. The school teacher uses various devices for enhancing the value of a stimulus in order to form associations more readily. She raises her voice, employs diagrams, colored chalk, or gestures. In the experiment of Calkins (*supra*) on the association of colors with numbers, vividness was introduced by having a given number made larger or colored red. Such intensified numerals were recalled 52 per cent of the time as against 21 per cent for all the others. In advertising, the various attention devices discussed earlier contribute also, in the present connection. Large color displays, intense lights or sounds, moving electric signs, or dramatic headlines make the experience more vivid and strengthen the associations.

Emotional Factors. While more violent emotional states such as might arise among the observers of an accident militate against accurate recall of the details, mild experiences of this sort, in which a thing is slightly pleasant or even unpleasant, tend to facilitate recall and to strengthen association. If the items in question fit

in with the present emotional state of the observer, this compatibility with his attitude facilitates his paying attention to them and likewise his subsequent recall. Allusion was made earlier to the reader of the theater program who is at the time interested in pleasure and amusement, and would be impressed by advertising pertaining to night clubs which he might attend after the show. Such items would leave a stronger impression with him than if he were reading about the same things during the rush downtown in the subway in the morning or while sitting in a dentist's waiting-room. In a situation in which the reader is presumably in a certain mild emotional attitude the advertiser may capitalize the situation by adjusting his advertisement to fit in with that attitude.

Of wider significance is the fact that experiences with an emotional tone become fixed in memory more readily than items which are neutral. The fact that they are often more vivid embodies the principle mentioned in the previous section. A number of experimental studies throw light upon this tendency.¹ The majority of them have shown that recall is most facilitated by pleasant, less by unpleasant, and least by indifferent stimuli. However, contradictory results have been found in some cases, and the general conclusion is that the tendency is not very pronounced. A few of the more recent experiments may be cited. In one case a large number of words was used and each of seventy-three subjects graded each word as pleasant, unpleasant, or indifferent. After a lapse of five minutes he was asked to recall as many of these words as he could. Five minutes later still, he was given a sheet containing all of the words in alphabetical order and required to recognize the ones which were on his original list.² The results are summarized briefly in the upper left portion of Table 50, which shows the percentage of the different types of words recalled or recognized. A considerable irregularity, however, was manifested between individual subjects. In another experiment the subjects were asked to recall the pleasant experiences they had had during the past three weeks. Immediately they were asked to record likewise all the unpleasant experiences for that period. After a lapse of twenty-one days a second test was given in which the subjects recalled successively the pleasant and

¹ For a general review of the relations between feeling and memory compare Meltzer, H. "The Present Status of Experimental Studies upon Relationship of Feeling and Memory," *Psychological Review*, 1930, 37, 124-139. The article also includes an extensive bibliography.

² Silverman, A., and Cason, H. "Incidental Memory for Pleasant, Unpleasant, and Indifferent Words," *American Journal of Psychology*, 1934, 46, 315-320.

TABLE 50. EFFECT OF FEELINGS ON MEMORY

	Silverman & Cason		Jersild % Recall	Menzies % Recall
	% Recall	% Recognition		
Pleasant.....	21	71	45	65
Unpleasant.....	18	69	31	65
Indifferent.....	14	63		67
Intensely pleasant.....				68
Moderately pleasant.....				67
Slightly pleasant.....				53
Slightly unpleasant.....				56
Moderately unpleasant.....				67
Intensely unpleasant.....				69

unpleasant experiences for the original period. The results are given in the second section of the table, showing that forty-five per cent of the pleasant and 31 per cent of the unpleasant items were recalled on the second occasion. In this study no data were available for recall of indifferent experiences.¹ It is not clear from the results whether the pleasant character directly facilitated the memory or whether the pleasant items were rehearsed more frequently in the interim. Although some people brood about their troubles and their unpleasant experiences, the normal tendency is to think of the pleasanter things in reminiscing. From the advertiser's standpoint, however, it is not important whether the pleasantness facilitates retention as such or whether it leads to frequent rehearsal of the details in the interim. The important point is that if he presents his commodity in a pleasant setting with attractive copy, this will tend to cause the consumer to think of that brand on a subsequent occasion.

In another study the subjects listed their experiences of the preceding day and rated them as to pleasantness. A week later they recalled those same experiences. The data given in the last column of the table show little difference between pleasant, unpleasant, and indifferent on the whole, but there is a tendency for recall to vary with the amount of the pleasantness.²

Repetition. A final principle which serves to give a particular one of several contiguous associations an advantage is the familiar principle of repetition. If an advertiser presents his brand with

¹ Jersild, A. "Memory for the Pleasant as Compared with the Unpleasant," *Journal of Experimental Psychology*, 1931, 14, 284-288.

² Menzies, R. "The Comparative Memory Values of Pleasant, Unpleasant, and Indifferent Experiences," *Journal of Experimental Psychology*, 1935, 18, 267-279.

greater frequency than the brand of his competitors is presented, the prospects are more likely to think of his trade name when they need the product in question. The principle of repetition operates in school and in everyday life. It is by virtue of this technique that we learn the multiplication table, algebraic formulæ, or poems. It is scarcely necessary to cite general experiments showing the effectiveness of repetition as a factor in strengthening association, but mention may be made of a few studies which were motivated primarily by advertising interest on the part of the experimenter. Attention should be called in this connection to studies previously reported (Chapter IX) on the effect of size and repetition in advertising. It was noted there that small advertisements repeated under certain conditions might be as effective or even better than large advertisements appearing only once, particularly if variation were introduced into the small repeated advertisements. It is difficult to separate the memory and the attention effects of repetition. Encountering a thing which one has already experienced involves an element of familiarity, and after one experience he is somewhat set for its subsequent appearance. To this extent the repetition facilitates attention. It also operates on the process of retention in strengthening the association.

In order to simplify the discussion it will be limited to the results of one, two, and four presentations. More than these were used in some cases, but the general principles will be apparent from this analysis. In each instance the original figures reported for a single presentation will be taken as unity and the corresponding figures for others will be reduced to a ratio to this. Table 51 summarizes the results.

TABLE 51. EFFECT OF REPETITION

Presentations	Tachistoscope	Dummy	Strong	Words	Cube Root
1	1.00	1.00	1.00	1.00	1.00
2	1.96	1.49	1.24	1.20	1.26
3	2.69				
4	3.36	2.60	1.61	1.45	1.59

The first experiment to be described dealt with the repetition of pictures — a case of abstracting a single element of advertising for separate investigation. Cards were presented in a tachistoscope,

each containing three squares of color and a picture. The subject reported immediately everything he had seen. Some pictures appeared on only one card, others on two cards, and others on three or four. The frequency with which a picture was reported correctly after having been presented a given number of times afforded an index of the effect of the repetition upon recall. The data are given in the first column of the table. Two presentations are almost twice as effective as one, whereas four presentations are somewhat over three times as successful as the single one.¹ In another experiment there was employed a dummy made up of advertisements, some of which appeared once, others twice, and still others four times. The subjects looked through the booklet at their own rate and immediately wrote down those advertisements which they could recall. The ratios appear in the second column of the table and are appreciably smaller than the corresponding ratios for the repetition of the pictures in the tachistoscope experiment.² In the experiment of Strong already cited, dummies were used, and a check was made, after their perusal, by a recognition method.³ Although the original experiment involved variation of size as well as repetition, a breakdown of the data was possible on the variable under discussion. Some advertisements appeared in four dummies a month apart and were tested a month thereafter, whereas others appeared in only one dummy and were tested the subsequent month. If the size is disregarded and all the advertisements are combined on the basis of number of presentations, the results indicated in the third column of the table are obtained. The advantage of repetition is even less marked than in the preceding column.

In another study a dummy was employed which consisted merely of four-letter words which might be repeated once, twice, or four times in the course of the dummy. The results appear in the fourth column of the table and are similar to those in the third column, although the four presentations are less effective.⁴

The tendency is apparent for repetition to facilitate memory, but it is evident that the latter is not aided directly in proportion to the number of presentations. The fact was brought out in an earlier chapter that the attention value of size is approximately in propor-

¹ Adams, H. F. *Advertising and Its Mental Laws*, p. 113 ff. ² Adams, H. F. *Op. cit.*, p. 235.

³ Cf. p. 174; also Strong, E. K., "The Effect of Size of Advertisements and Frequency of Their Presentation," *Psychological Review*, 1914, 21, 136-152.

⁴ Adams, H. F. "Memory as Affected by Isolation of Material and by Repetition," *Journal of Applied Psychology*, 1927, 11, 25-32.

tion to the square root of the area. It has been suggested that the effect of repetition as revealed in experiments like those cited follows more nearly a cube root relation. In the last column of the table appear the cube roots of 1, 2, and 4. They manifest some similarity to the ratios in the two preceding columns. Although it is difficult to disentangle the effects of attention and memory, and perhaps unnecessary to do so from a practical standpoint, these considerations of square root and cube root relationships favor the size factor rather than the repetition factor. Reference should be made, however, to the earlier findings that small units repeated with variation rather than duplication in the successive repetitions have distinct possibilities.

Another possibility is the introduction of repetition within the same advertisement. A slogan is sometimes repeated numerous times in light-face type on what would ordinarily be the white background in a picture. Cuts of an automobile in different situations are presented with the slogan regarding the resisting qualities of the oil appearing on top of each picture.

Comparative Effectiveness. The question now arises as to the comparative effectiveness of these various principles which make for the strengthening of association. Experiments on the problem are rather unsatisfactory because some of the factors, such as vividness, are difficult to quantify. An early experiment involved associating a color with a number so that subsequently when the color appeared the corresponding number could be given. Certain pairs were shown more frequently than others. Primacy and recency were controlled by the position of the pairs in the list, and vividness was introduced by making the numbers large or printing them in red.¹ The general trends are summarized in Table 52 and are in terms of ratios to the

TABLE 52. FACTORS INFLUENCING ASSOCIATION *

Normal.....	1.00
Frequency (2).....	1.54
Frequency (3).....	2.05
Vividness.....	2.15
Recency.....	1.96
Primacy.....	1.35

* Calkins.

normal pairs which had no outstanding characteristics. So far as these data go, frequency with three presentations was superior to re-

¹ Calkins, M. W. "Association," *Psychological Monographs*, 1896, 1, no. 2, pp. 1-56.

cency, while primacy was the least effective of the principles involved. Vividness was the most pronounced factor, but the results are equivocal in the light of the point mentioned above — that it is difficult to say just how much vividness was present in the experimental conditions.

An investigation of some of these factors in the verbal field has a possible bearing on radio advertising.¹ Fictitious biographical narratives containing about seventy items each were presented verbally. Variations were introduced by repeating certain items several times or by making gestures and pauses. Some of the results are summarized in Table 53. In this table the average

TABLE 53. FACTORS INFLUENCING ASSOCIATION *

Five presentations.	315
Four presentations.	246
Three presentations.	197
"Now get this"	191
Primacy (first)	175
Two presentations (11 and 60).	167
Primacy (second)	163
Two presentations (35 and 40).	162
"Did you notice that"	154
Pause	143
Two presentations (60 and 61).	139
Primacy (third)	135
Recency (last)	128
Loud	126
Recency (third from last)	123
Recency (second from last)	119
Two presentations (10 and 11).	116
Bang	115
Neutral	100
Slow	79

* Jersild.

memory value for normal items which had no particular type of emphasis is taken as 100, and the score for other items is taken as a percentage of this normal. The entries in the table are in order of decreasing magnitude. Presentations of five, four, and three times head the list. A high value is found for a preliminary statement, "Now get this." The marked effectiveness of primacy in this experiment is at variance with the other just cited in which recency was superior, but it corresponds fairly well with experiments in learning nonsense syllables. It should be noted also that the value of two presentations depends on their distribution. The best results were

¹ Jersild, A. "Primacy, Recency, Frequency, and Vividness," *Journal of Experimental Psychology*, 1929, 12, 58-70.

obtained when they were in the 11th and 60th position; whereas when they were contiguous (60 & 61) they were not so effective. Furthermore, the contiguous repetitions toward the latter part of the list were better than the contiguous repetitions toward the beginning. A pause is quite effective in emphasizing some particular association, but a mere attendant bang helps little, and when the material is presented with undue slowness it actually operates against the memory.

DIRECTION OF ASSOCIATION

A problem arises in connection with the direction of the association between a product and a brand. "Palmolive" suggests "soap," and "soap" may suggest "Palmolive," but it is possible that one of these associations is stronger than the other. The advertiser is most interested in the situation in which the thought of soap reminds the prospect of a particular brand.

Experimental Technique. An experimental approach to this problem has been made by the conventional association-reaction technique in which a stimulus word is presented, the subject responds with an associated word, and the reaction time is recorded. In a typical laboratory procedure an exposure apparatus presents a typewritten word when a shutter, actuated by a lever, drops. The shutter makes an electric contact at the end of its excursion, and when the subject speaks the first associated word the sound waves actuate a diaphragm in a voice-key near his mouth and break a circuit. The contacts mentioned operate a chronoscope, which involves essentially a synchronous motor and a magnetic clutch whereby a revolving hand may be thrown into gear with the motor. The connections are such that when the stimulus word is exposed the hand starts rotating in front of a dial, and stops when the subject speaks into the voice key. By noting the initial and final positions of the hand, and knowing the speed of the motor or the calibration of the dial, the reaction time between the stimulus and response may be measured. With this technique it is possible to use as stimulus words the names of commodities such as "soup," "soap," "cigarettes," or names of particular brands such as "Heinz," "Camay," or "Lucky Strike." The subject responds with the first associated brand or commodity, as the case may be, and the assumption is that the associations which are given in the shorter reaction time are the

stronger and more likely to be effective under practical conditions.

Particular to General. The results of such experiments indicate a more rapid association from a particular brand to a general commodity than in the reverse direction. The results of a few experiments are included in Table 54. Each row represents a given series

TABLE 54. ASSOCIATION REACTION TIMES

Particular to General	General to Particular	% Difference
1.24	1.39	12
1.14	1.80	58
1.90	2.36	24

of experiments. In one instance the average association-reaction time for all the subjects and all the words where the stimulus was a particular brand was 1.24 seconds, whereas the associations in the reverse direction required 1.39 seconds, a difference of 12 per cent. A similar experiment, shown in the second row, has a somewhat larger difference. The third row gives a summary of data collected by Adams,¹ which involved about sixty subjects. The difference is 24 per cent in favor of the association from particular to general.

The tendency may be investigated roughly by making up two lists of words like the following and having the subject go down the column, writing after each name the first associated word. One column contains names of products and the other names of brands. It is desirable to have a brand name in the second list corresponding to each commodity in the first but in a different position in the list, in order to eliminate error due to product familiarity. The times required to go through each list may be compared. One can easily demonstrate the principle by going through the lists himself and noting the greater subjective difficulty when the stimulus word is the name of a product.

toothpaste	Remington
collars	Arrow
cigars	Colgate
typewriters	Goodyear
cigarettes	Harvard
tires	Campbell's
watches	Waltham
pencils	Fatima
soup	Eversharp

¹ Adams, H. F. *Advertising and Its Mental Laws*, p. 182.

Forward versus Backward Association. The foregoing result is unfavorable to the advertiser. He wishes the product to remind the customer of a particular brand, and this association is normally weaker than associations in the reverse direction. Another principle, however, may operate to offset this unfavorable situation. This principle is known as forward association. When an association has originally been formed in a given order it is easier for it to be re-instated in that order rather than in the reverse direction. Anyone may demonstrate this by comparing the time it takes to say the alphabet in the normal direction with the time required to say it backwards. This difference in difficulty is due to the fact that the associations were formed originally in the order a, b, c, d rather than in the reverse order. A still more crucial test may be made by saying a familiar poem backwards. Consequently, if the associations from general to particular are intrinsically weaker, it is possible to strengthen them by presenting the items to the readers in that order repeatedly so that forward associations may be formed in the desired direction. If the advertiser wishes "hat" to suggest "Stetson" most effectively, he should advertise the items in that order. Instead of urging the reader to buy a Stetson hat he should suggest that if the reader needs a hat he should get a Stetson. In the same way he should not be told to use Unguentine for burns but that when he is burned, Unguentine should be applied. Instead of advertising the Statler Hotel the publicity should be based on Hotel Statler. The traveler arriving at the railroad station does not think, "I guess I'll go to the Statler; I believe that it is a hotel." On the contrary, he thinks, "What hotel?" and that word calls up some proper name through a process of association. Thus the principle of forward association may be used to offset the normally unfavorable tendency for associations to be stronger from particular to general. The problem is similar to that discussed earlier in connection with the comparative merits of presenting want versus solution in the long-circuit appeal (page 106). It was noted there that the more effective results were achieved in the advertisement which began by presenting the want or the need and following it with the product which would meet that need, thus presenting the items in the advertisement in the same order in which they would normally function in subsequent practical situations. In any advertising project in which it is desired to have an association stronger in one direction than in another, the situation may be controlled by presenting the items in the advertising in that desired order.

ASSOCIATION TESTS OF ADVERTISEMENTS

Association tests similar to those just described have frequently been employed by advertisers in order to determine the extent to which a particular brand is associated with the product. In most of such tests the data are qualitative rather than quantitative; that is, the speed of the reactions are not measured but merely the trade name response is recorded. Such methods have been applied informally with persons who happen to be accessible to the advertiser, and in some instances the work has been organized through the courtesy of instructors in educational institutions who were willing to present to their classes certain commodity names and have the members write down the first brand which occurred to them. The subjects are frequently asked in addition what brand they use themselves.

Dominant Brands. The usual analysis of such data consists of tabulating for each product the frequency with which each trade name or brand is mentioned and reducing these frequencies to percentages. It often develops that a product has a dominant brand, that is, one which is mentioned with overwhelming frequency as compared with any other. In one study of this sort, "sewing machine" brought the response "Singer's" in 77 per cent of the cases. "Soup" elicited "Campbell's" in 76 per cent, collars were associated with "Arrow" 75 per cent of the time, and "cleanser" suggested "Old Dutch" with approximately the same frequency. On the other hand, products like ribbons, umbrellas, and rice had no trade name which was outstanding. For some commodities less than 7 per cent of the mentions are allocated to any particular brand. Such variations doubtless reflect advertising practice. Presumably the dominant brands have been advertised frequently and insistently with more effective copy.

Familiarity versus Use. When the subjects who have given the brand names which first come to mind in connection with a particular product are also interrogated regarding the brands which they use, a disquieting result is often obtained. Frequently the person does not use the brand which is most familiar to him as indicated by the association test. In one of the earlier experiments familiarity and use agreed in only 58 per cent of the cases.¹ In another experi-

¹ Laird, D. A. "Critique of the Association Test as Applied to Advertising," *Journal of Experimental Psychology*, 1923, 6, 357-305.

ment to be described presently the corresponding percentage was 46. The association test is thus an unreliable index of sales, and mere familiarity with a trade name does not ensure its acceptance to the extent of making a purchase. One might consequently be inclined to discard the whole association procedure as having no value with reference to advertising. On the other hand, this discrepancy between familiarity and use may be considered a challenge to the advertiser to determine its causes.¹

A number of factors have been suggested to account for the results just mentioned. In the first place, it is possible that the advertising has involved mainly publicity for the name with insufficient emphasis upon reasons for purchasing the product. The consumer may have seen the name on the poster board or in the headlines without having read any detailed copy about the merits of that particular product, so that the advertisement merely creates familiarity. In the second place, the reader may not be using the brand in question, although it is the most familiar one, because of the cost. The stimulus word "automobile" may suggest a high-priced car in which he is interested and which he would be very much inclined to purchase were he financially able to do so. A third possible factor is habit. A person may be convinced that a new brand is better but continues to use the old because he has always done so. Many of us have entered a store with a mild resolution to buy a particular brand, and then when we reached the counter and noticed the familiar name the old habit dominated the situation, and another sale was recorded for the original brand. Still another factor is the frequency of purchase. Some commodities are bought only once in a lifetime. It is quite possible that the purchase in question was made long before the more recent advertising campaign built up some other association to a higher degree of vividness. Fountain pen may suggest Schaefer to the subject of the experiment because of recent advertising efforts, but he is still using the Waterman which he purchased ten years ago. Then there is the possibility that a product may be advertised nationally but not be stocked in the local market. One is reminded of the national brand but is actually using the one which is conveniently accessible in the corner store. At any rate, if association tests of this sort are run at periodic intervals they may throw light upon changes in the brand familiarities

¹ Cf. Poffenberger, A. T. "Psychological Tests in Advertising," *Journal of Experimental Psychology*, 1924 7, 312-320.

as influenced by current advertising practice. Certainly the advertiser need not discard the association test as making no contribution to his problem, but rather should investigate the cases of discrepancy between familiarity and use.

Experiment on Association Time. The usual experiment of the type just described deals only with the quality of the association words and makes a tacit assumption that all the responses represent associations of equal strength. An investigation was made of this particular assumption by recording not merely the quality of the response but the association reaction time.¹ The names of one hundred common products were used as stimulus words. They were presented visually in an exposure apparatus, and the association-reaction time was measured to thousandths of a second with a voice key and chronoscope. Each subject went through the list of products three times. On the first occasion he merely gave the first normal association which occurred to him. On the second occasion he responded to the names of the products by giving the first associated brand. The third time he gave the brand which he actually used, and in case he did not use the product gave the brand which he thought he would use. For example, if the stimulus word was "cigarette," on the first occasion he might have said "smoke" or might have named some type of cigarette. In the second series he might have said "Camel," if that was the brand which occurred to him first of all. In the third series he might have said "Lucky Strike" as the brand which he used. In many cases, naturally, the responses for the second and third series were identical, and in some instances the same response was given in all three series. The first series was a novel feature of the present experiment and was designed to ascertain whether non-brand associations might have any effect on subsequent brand association. If the subject had a strong association between "cigarette" and "smoke" it was suspected that this fact would militate against a ready association of "cigarette" with "Camels" in the second series. A statistical procedure was devised for correcting the reaction time in the second and third series for the effect of this non-brand association. This experimental approach made it possible to analyze the actual strength of the associations in addition to their mere existence.

For each subject all the reaction times for Part II, that is, for

¹ Wallar, G. A. *The Association Reaction Time as a Measure of Familiarity with and the Use of Advertised Commodities*. M. A. Thesis, Ohio State University, 1935.

"familiarity," were averaged and compared with the average of all those in Part III, that is, "use." No subject showed any statistically significant difference between these two averages. The subject named the first brand which occurred to him about as quickly as he named the brand which he used himself. It should be noted, however, that in many cases the response in Part III was merely a repetition of that which occurred earlier in Part II. An interesting point is brought out by breaking down the reaction times of Part II according to whether or not the brand mentioned was also mentioned in Part III, that is, reaction times for brand named and used as compared with brand named but not used. Seven of the ten subjects showed quicker average reaction time for the former, and with two of these the difference was of undoubted statistical significance. Using the product apparently quickens the association time when one is merely giving the first brand which occurs to him in response to the name of the product. A similar trend is noted when the data of Part III are analyzed in the same fashion. The average time required to name the brand used when it is also the brand which had been given in the preceding association was less than the time involved when the name was not that given in the previous association test. All ten of the subjects showed this trend, and five of the differences between the averages were statistically significant. In other words, familiarity decreases the reaction time when naming the used brand, but the experiment yields no evidence that familiarity universally increases the tendency to use the brand. Some of the factors mentioned earlier interfere with this tendency.

Of the one hundred commodities used in the study there were twenty-seven in which one brand was named as familiar by at least half of the subjects. The average reaction time for these twenty-seven words on the part of all the subjects was appreciably quicker than that for the words in the entire series. The difference is around 12 per cent. This greater speed of association for the more frequently mentioned words suggests that the frequency of response for a group of subjects may be taken as an indication of the strength of association between a product and a brand. This result tends to justify the more conventional method of merely noting frequency of a particular response.

Retail Stores. A similar association technique has been used in investigating retail stores. In one of the larger cities a blank was provided with the names of different kinds of stores, such as drug,

shoe, grocery, and the subjects required to write the name of the first store of that kind which occurred to them.¹ Certain stores dominated in this particular study. The experimenter compared the expenditures for newspaper advertising made by the various stores with their rank in association and found some agreement. Other factors, however, cut across this trend, such as a furniture store which had a very large window display or a bakery which did a lot of advertising but had a difficult name. At any rate, this study indicates the possibility of extending the same general technique to other fields in which the advertiser is concerned with the extent to which he has influenced the public through the medium of the association process.

METHODS OF TRIPLE ASSOCIATES

The association method has been extended in some studies to include the product and the slogan as associated with the trade name. Instead of asking the subject to mention the first brand of coffee which occurs to him, he is asked "what coffee advertises the date on the can" or, instead of being required to name the first toothpaste which occurs to him the subject is asked to state which toothpaste advertises about pink toothbrush.² This method has been called that of triple associates in contrast to the usual method of paired associates. The replies of the subject can be recorded in terms of the percentage who give the correct brand, those who give any other incorrect brand and those who say they do not know. This method has been used in extensive surveys by door-to-door interviewers. Wide differences in the percentage of correct answers were noted, and in some cases could be traced to the frequency of advertising. For instance, in 1932 with some fifteen hundred subjects the question as to what coffee advertises "Look for the date on the can" was correctly answered by 69 per cent, whereas the question "What building company advertises 'I smell smoke'?" was answered by only 4 per cent. The first slogan had appeared in national magazines and on the radio for over a year. The second had appeared only in a single advertisement in the *Saturday Evening Post*.

In other investigations of slogans the subjects have merely been asked to identify the slogan without giving them any clue as to the

¹ Asher, E. J. "The Association Test for Retail Stores," *Journal of Applied Psychology*, 1928, 12, 437-446.

² Link, H. C. "A New Method for Testing Advertising and a Psychological Sales Barometer," *Journal of Applied Psychology*, 1934, 18, 1-26.

product. Many readers are familiar with the slogan or with the trade name but do not know what product is involved. For example, some subjects associated "Hasn't scratched yet" with underwear rather than cleanser. "99.44% pure" was associated with whiskey as well as with soap. A listener may be familiar with a radio program but be unable to recall what product is advertised. If the advertiser wishes the slogan, the radio feature, the trade mark, or even the product itself to serve as a reminder of his particular brand, he falls short of this end if he fails to form adequate associations. Some of the principles discussed at the beginning of the present chapter might assist in the more adequate formation of such associations. When displaying a slogan, for example, it is important to tie it in with the product by having the two items contiguous, so that the reader does not get the slogan merely in isolation.

Radio advertising creates an especial association problem in view of the fact that an entertainer occasionally shifts from one sponsor to another. If he has been broadcasting in the interests of coffee and is then sponsored by toothpaste, there is a transition period during which mention of his name or the sound of his voice will still give publicity to the coffee. Experiments have indicated that this "hangover" lasts at least several months but ultimately drops out through the principle of disuse. The building up of a new association may be facilitated by arrangement of the announcement so as to tie the name of the artist very definitely with the new product.

SUMMARY

It is necessary to make the prospect remember the trade name or the sales message in the advertisement until the need for the product arises or until he is able to purchase it. A fundamental principle for forming such associations is the law of contiguity, to the effect that if two items are presented contiguously, the subsequent experience of one will bring back the other. Repetition of the product and trade name together will facilitate this association, but other principles are necessary in order to explain why one of the contiguous brands has the advantage over the others which have likewise been contiguous. Such other principles include recency, primacy, vividness, and the mildly emotional character of the experience. Repetition is the most obvious of these factors which facilitate association. It is found experimentally, however, that the facilitating effect is not

directly proportional to the number of presentations of the advertisement or other material. The memory value approximates the cube root of the number of presentations. Experiments as to the comparative effectiveness of the above factors are inconclusive because it is difficult to quantify some factors such as vividness. As far as the results go, three or more presentations are comparatively quite effective with either visual or auditory material.

It may be demonstrated experimentally that the association from a particular brand to the general class or product is stronger, that is, more rapid, than the association in the reverse direction. This tendency is unfavorable for the advertiser who normally wants the product to suggest the brand. It may be offset to some extent by taking advantage of the facilitating effect of forward association and presenting the items in the advertisement with the name of the product first, followed by the brand name.

Association tests often are conducted by advertisers to determine the extent to which a particular brand is associated with the product. Some products are found to have a dominant brand, that is, one which is mentioned as the first association by a majority of the subjects. This dominance presumably reflects advertising practice. It is frequently found, however, that the subjects actually use some brand other than the one they mention in the association test. Mere familiarity does not ensure sales. The discrepancy can often be explained in terms of the mere display character of the advertising, the cost of the associated brand, old buying habits, or infrequency of purchase.

An experiment was conducted with the usual association test but with the additional feature of measuring the association reaction and making allowance for strength of non-brand associations with the stimulus words. The results indicated that reaction with the familiar brand was quicker when that brand was also the one used. It was also found that for those products which had a dominant brand (*supra*) the average reaction time was quicker. This result tends to justify the usual qualitative procedure of merely noting the frequency of brand responses.

In a variation of the association method two items such as the product and a slogan are given to the subject and he is required to name the brand. Association tests with slogans alone often show a failure of the subjects to associate the slogan with the correct product, thus reflecting a failure of the advertising so far as the use of the slogan is concerned.

CHAPTER XIX

MEMORY DEVICES

INGENUITY

IN THE preceding chapter were discussed general principles of association which the advertiser might utilize in creating a lasting impression so that when the need arose his product would be purchased. In addition to these more general principles a number of special devices which serve the same end will be discussed briefly. The first of them may be classed as mere ingenuity. No general principle is involved, but the advertiser may, in a particular situation, devise some ingenious technique which will facilitate memory for the commodity. A familiar instance is the curious trade name, such as Uneeda, Iwanta, Slip-Not, Seald-Sweet. Insofar as these names constitute a play on other words which have meaning and are appropriate to the commodity, they possess mnemonic value. Telephone numbers sometimes lend themselves to a mnemonic scheme. A taxi company secures the number 1313 or 1234, and patrons find it easy to remember it. "Before and after" pictures showing the effect of an alleged remedy for obesity may make a lasting impression.

RHYME AND ALLITERATION

Anyone who has memorized selections of poetry and prose is impressed by the comparative ease of the former. If pairs of lines end in the same rhyme, retention is facilitated because the learner knows what kind of sound to attempt to reinstate. Alliteration operates in much the same fashion, as the same sound appears repeatedly. Advertisers utilize these principles to facilitate memory for their slogans. "The ham what am," "A Kalamazoo direct to you," "An apple a day keeps the doctor away," "Oshkosh by gosh Overalls" derive effective memory value from this repetition of the same letters or sounds. More ambitious copy writers present a whole poem in the advertisement, for example the quatrains about the tomato soup mascot. From the standpoint of making the pros-

pect remember the product, the poem is inferior to the brief catchy slogan. Few readers will memorize the poem, even though they may be sufficiently interested to read it. A brief straightforward expression like "Quick Quaker" will make a more lasting impression than a whole verse. Although alliteration may be in disrepute for some persons because of the way it has been used by circuses and in other flamboyant display, it is doubtful that this tendency is widespread.

RHYTHM

Rhythm constitutes another advantage which poetry has over prose. This difference holds quite apart from the meaning of the material and may be demonstrated experimentally. Subjects learned a list of ten two-place numbers which were read to them either rhythmically or with one or more numbers out of rhythm.¹ The results are summarized in Table 55. When the reading was

TABLE 55. REPETITIONS IN LEARNING TEN NUMBERS *

Number Out of Rhythm	Repetitions
0	5.75
1	6.25
2	6.50
3	7.00
4	7.25

* Elkin.

entirely rhythmical, that is, with no numbers out of rhythm, the average number of repetitions required for memorizing was 5.75. If the rhythm was broken to the extent of having one number wrongly timed, the learning required 6.25 repetitions. The more the rhythm was broken the greater the number of necessary repetitions, within the limits of this experiment.

Granted that rhythm does facilitate learning, a further problem arises as to whether certain types of rhythm are more efficacious than others. In an experiment on this problem several of the conventional poetic rhythms were employed.² The subjects were required to learn nine or ten digits which were presented in these rhythms. The results are summarized in Table 56. At the left

¹ Elkin, D. "Über den Einfluss des Rhythmus und des Tempos auf den Gedächtnisprozess," *Archiv. für die Gesamte Psychologie*, 1928, 64, 81-92.

² Adams, H. F. *Advertising and Its Mental Laws*, p. 241.

TABLE 56. MEMORY FOR NUMBERS IN RHYTHM *

Type of Rhythm	Average Score for Male	Average Score for Females
Normal.....	92	92
Trochaic - / - /	91	90
Iambic ~ / ~ /	97	94
Dactylic - ~ - ~ /	110	109
Anapaestic ~ ~ - / ~ ~ - /	108	112

* Adams.

the type of rhythm is indicated by name and also by long and short syllable marks. The corresponding memory scores for the average of a group of men and a group of women are given in the other columns. The striking thing in the table is the superiority of the three-part rhythms, that is, rhythms that have three feet in a measure. Whereas non-rhythmical presentation gives a score of 92, the dactylic and anapaestic arrangements with three feet in a measure yield a score around 100. The two-part iambic rhythm takes an intermediate position, while the trochaic rhythm differs only slightly from the non-rhythmical presentation. If rhythm is to be used for memory purposes in a slogan, it is well to bear in mind this superiority of the three-part rhythms.

AROUSING ACTIVITY

If a person can be induced to do something in connection with a product he is more likely to remember it. Merely going through the motions serves to reinforce the whole experience, just as reading a poem aloud facilitates memorizing. The most desirable result would be to have the prospect purchase the commodity on the spot, but short of that it is possible to get him to do other things which will help him remember it. The personal salesman has an advantage in that he can actually hand the prospect the egg beater to turn or induce him to step into the car and drive it. The advertiser is limited to suggesting that the consumer do something such as feeling a sample or making some test. Recent proposed tests of this sort include the following: looking at sheets held against the light, pouring whiskey into a glass and smelling the aroma, making the blindfold test with Kaffee Hag and with one's favorite coffee, dissolving a tablet of aspirin in water, taking parchment paper, wetting, and stretching it to see that it does not fall to pieces. One caution should be mentioned in this connection; namely, not to

make the test so much of a laboratory experiment that it will deter the person because of its apparent complexity.

In other cases the suggested action does not deal directly with the product but may involve cutting out the coupon or writing for a catalogue. Quite apart from the fact that the coupon brings the individual's name and makes possible a follow-up, it may have some effect on the prospect himself in the way of impressing the commodity upon his memory. He may be induced to submit names of his friends, to do puzzles, to make up limericks or poetry, or to reproduce cartoons. A device used by some of the correspondence schools in commercial art is to present a cartoon which the reader is asked to copy and send in, so that they can tell him whether or not he has any talent. The writer is not familiar with the usual verdict for such inquiries, but he has his suspicions. At any rate, the motor aspect of copying the cartoon and sending it in impresses the prospect with the name of the school and the possibility of studying with them.

Contests. Many of these devices for filling out coupons or answering questions take the form of contests. The prize is an additional feature, but the fact that the reader does something in connection with the commodity serves to impress it upon him. The number of readers who go through this procedure is often surprising. A baking powder campaign featured a picture of an elderly man reaching for a waffle. It was displayed in store windows and thirty-five hundred dollars in prizes offered for the best title for the picture. About three hundred and fifty thousand contestants submitted titles. Many of them would remember about that particular baking powder as a result of having gone through this process.¹ A project sponsored by a cigarette manufacturer secured over two million contestants who sent in eighty tons of wrappers and spent a million dollars on postage.

Statistics of this nature should be discounted in the light of the fact that during a period of unemployment the number of participants in contests reflects the greater amount of spare time and greater need for the prize. When many of the contests involved making up words out of certain key letters, the metropolitan libraries reported a veritable mob waiting to enter on Monday morning and use the dictionaries and books of reference. Some

¹ Anon. "Window Display Contest Drew 350,000 Replies from Consumers," *Printers' Ink*, June 4, 1931, 155, 10.

"teams" actually worked in shifts in order to monopolize the dictionary for the entire day, and the actual life of the dictionaries was shortened. These contestants, however, would be impressed with the product and remember it on a later occasion when they might be in the market.

One principle is important in contests, namely, the desirability of having a considerable number of prizes rather than only a few very large ones. A single prize of ten thousand dollars is beyond the hope of the average individual. He assumes that the winner must possess extraordinary skill and that his own chances are negligible. If the prizes are numerous the reader feels that he has a chance of getting something and so will make the attempt. One concern which held an annual contest doubled its responses one year when it doubled the number of prizes but kept the same total value.

Contests are often circumscribed with requirements as to proof of purchase, such as enclosing a wrapper or sales slip. While, according to the law, one cannot be forced to buy the product in order to enter the contest, and is entitled to substitute a facsimile, nevertheless the average contestant hesitates to follow this latter procedure for fear that it will prejudice his case. This practice represents an effort to defray some of the cost of the contest by increasing the sales to the extent of one sale per contestant. Psychologically some prospective contestants may refrain because they do not use the product, and hesitate to purchase it merely in order to obtain the wrapper, while others may have an unpleasant feeling aroused by the compulsion to purchase which will then transfer to their subsequent attitude toward the product itself. The contest with no stipulations runs less chance of arousing ill will except in the case of some participants who do not receive a prize. This disappointment would be slightly accentuated on the part of a contestant who had actually paid something in order to participate and then failed. The psychology of the situation indicates the desirability of the free contest.

A minor point in connection with the contest is the inadvisability of subordinating the display of the package or the trade mark to contest features. If the advertisement is designed merely to select contestants, it will have little effect on the general reader who is not concerned with the contest.

Free Picture. Another scheme for arousing activity to facilitate the memory is to present an attractive picture in the advertisement

and offer the reader a free copy of it "suitable for mounting or framing." Some people apparently furnish their homes, or portions thereof, in this manner. Tastes differ, but a given picture often has a very extensive appeal. Instances are on record in which a picture which was offered free or for a few cents to cover mailing received upwards of one hundred thousand requests. Merely going through the motions of making the request will serve to impress the product upon the memory. Furthermore, the picture itself will become associated with the product and, as it is displayed on the wall, be a continuous reminder.

A somewhat related device was employed by a retail shoe store, which in a window display urged the prospective customer to come in and secure a chart which he could fill out for himself to show the natural shape of his foot. This chart would help him determine whether he needed a straight last or a swing or a compromise. This simple activity would impress him with the brand of shoes sold in the store and might lead him to return with the chart for interpretation or for actual selection of shoes. Equipment for looking at one's own feet by X-ray may likewise leave quite an impression. A self-manicure display comprised three kinds of nail polish and also a polish remover. The patron was invited by a notice to "apply one of these lovely shades to your nails now." Going through the motions at the counter would serve as an effective reminder.

This notion of the prospect's using the commodity lends itself more effectively to personal selling than it does to advertising, a field which is outside the province of the present text but which deserves passing mention. The radio buyer may be permitted to turn the dials himself and tune in some station, or the prospect is allowed to drive the new car and get the "feel" of it himself. A concern which sold electric fans placed, one hot day, some wicker furniture on the sidewalk under the awning with a number of the fans in operation and a sign inviting people to sit down and cool off. As a result the entire stock of fans was sold.

REMINDERS

In the interest of making the prospect remember the product, he may be given some tangible object which will remind him of it. This technique may be psychologically superior to the usual sales letter.

Such letters readily find their way across the desk into the waste basket or, at best, into the file. If the object happens to be interesting and is inconvenient to file, the recipient may leave it on his desk a few days while deciding what to do with it, and in that interval it serves as a reminder of the product. It is the custom of a furniture concern to send the prospect a small can of varnish with an accompanying letter explaining that this is the kind of varnish used on their products. The varnish has a tangible value so that a thrifty individual hesitates to discard it outright. He cannot give it to his secretary to file. The result is that it remains on the corner of the desk for a few days, meanwhile reminding him of the furniture. By that time it has accomplished its purpose, and it makes no difference to the manufacturer what happens to it thereafter.

An organization sent prospects a copy of a book with a certain passage marked and a statement to the effect that "the author was probably thinking of our product when he wrote this passage." The recipient hesitated to throw away a book which apparently was worth a dollar and, as in the previous case, left it on his desk a few days, where it served as a reminder.

The manufacturers of cellophane utilized this principle in an extensive way. A series of reminders was sent to a selected group of "big" men who might be induced to adopt cellophane for wrapping their products. The reminders were sent at intervals of a few days, each with an accompanying letter. The first was a baby's wash cloth wrapped in cellophane with a letter pointing out how such a delicate item could be delivered clean and sanitary. The second letter was accompanied by three cigars and attention was called to the way that they were kept by the cellophane. The third was a nail clipper, with the emphasis on the fact that it did not rust or tarnish in transit. Then came a package of dates, and a description of how tons of dates and figs are packed and kept clean in that way. Next was a package of marshmallows which were kept at just the right degree of moisture. Then came a bottle of shaving lotion in which the wrapper gave it a "quality" touch. A cake of soap was accompanied by a letter telling how the delicate perfume was retained by the wrapper. The last was a handkerchief which could be examined and handled without affecting its cleanliness. Many of these items would be taken home and used by the recipient and thus would remind him of cellophane. The final sales letter recapitulated the items which had been sent and the features of cellophane already

mentioned, stated that a booklet explaining the product in more detail was on the way, and finally urged the prospect to drop them a line if he was interested in seeing a sample of his own product wrapped in cellophane.

Some reminders derive additional value from their timeliness. If a reminder is naturally associated with some other stimulus already present at the time, the recipient reacts to it more favorably because he is set for it. One such system was devised in connection with a calendar. The calendars had been distributed previously "by request" so that there was a fair presumption that they would be hanging on the wall. The calendar had a separate page for each month showing a large picture of some use of the product. A letter was sent to each prospect so that it would reach his desk on the first day of the month, and the picture on the letterhead was a replica of that appearing on the calendar for the month in question. If the letter reached the desk on the same day that the new leaf had been turned on the calendar the coincidence would make a strong impression and would at least ensure the reading of the sales letter.

A similar timely reminder is that of an oil company which mails out post cards bearing the same picture that appears in their current advertisement. The message in informal style reminds the reader to look at their advertisement in the current issue of certain magazines. If he does so he will be pleasantly surprised to find there the same picture which was on the card, and he may read the advertisement more carefully.

When a person is already using a product it may be advisable to employ a system for reminding him to secure some more of it, before the present supply is exhausted. Kleenex, for example, places an insert about two-thirds of the way toward the bottom of the package suggesting that it is time to get more. A loose-leaf notebook for keeping memoranda has a page toward the end reminding the individual to get refills before this one is gone. The package of razor blades has one in a colored wrapper reminding the user that he is nearing the end.

NARRATIVE

In everyday reading one remembers a story more readily than an essay. Consequently, the introduction of narrative into ad-

vertising copy should facilitate memory for the message. The narrative may involve a mere monologue such as a diary of a cake of soap; a dialogue between two or more persons, such as "Blackstone — sure"; or a more lengthy discussion such as that between Mr. Addison Sims of Seattle and the memory expert. If it is enlivened with a picture of the participants in the dialogue, so much the better. The men in the Pullman washroom are shown talking about shaving soap or safety razors. A manufacturer of automatic sprinklers dramatizes events out of the day's work, featuring a young engineer who is the underdog in the discussion but finally makes his point that these particular sprinklers are superior. When using dialogue it is desirable to make it sound real. The copy writer may find it advantageous to frequent places where the product is used and make note of conversations regarding it. The copy should not be lengthy and verbose when the individual portrayed in the dialogue would naturally be brief and to the point. A picture is presented of a mill superintendent showing visitors around and making the statement, "Gentlemen, this is one of the most essential things we ever put into the mill." A statement like this is typical of the way a superintendent might talk to visitors. He would not deliver a lecture.

Apart from dialogue, narrative may take the form of a story about the product. We are told how Aunt Jemima left the farm and came up to St. Louis to show them how to make pancakes, as a result of which the flour was developed and named after her. The reader of advertising will find narrative more interesting and easier to remember than a cold, impersonal statement of the selling points.

FORGETTING AND FOLLOW-UP

The advertiser must face the fact that when one has not been very profoundly impressed by a thing, forgetting takes place rapidly. Numerous investigations have been made of the course of forgetting for various kinds of material, and the trend is the same although differences in degree are obtained. The classical studies were made by Ebbinghaus using nonsense syllables, and the general trend of his results has been corroborated on numerous occasions.¹ The

¹ Ebbinghaus, H. "Memory, a Contribution to Experimental Psychology," translated by Ruger and Bussenius. Teachers College, Columbia University, Educational Reprints No. 3.

essential procedure is to have a subject learn material under standard conditions and then, at various times after the initial learning, check for retention. If material is available in adequate amounts and of comparable difficulty, it is possible to obtain indices of retention at various periods after the initial stimulation. A typical Ebbinghaus curve appears in Figure 6. This curve is based on memory for

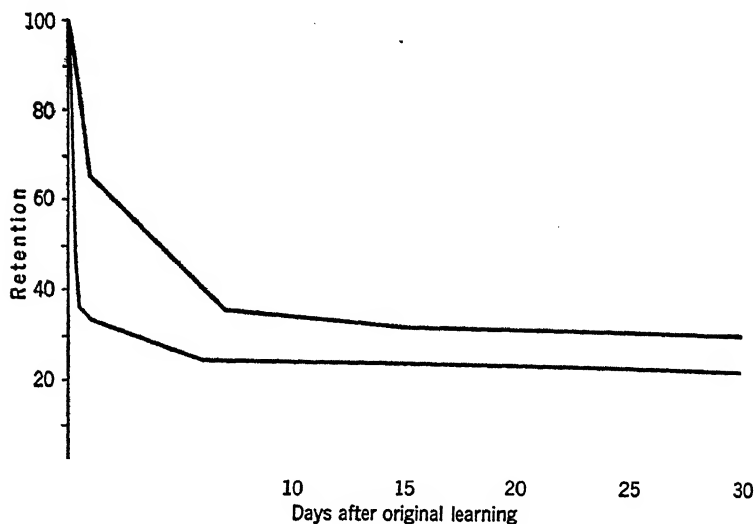


FIGURE 6

nonsense syllables and starts with an initial proficiency of 100 per cent, which means that the material is repeated until the subject is able to reproduce it correctly. The curve drops to about 33 per cent after one day. In six days it is down to 25 per cent, and levels off thereafter. The other curve in the figure is based on memory for a short passage of text which was read to the subjects and tested after various periods.¹ This curve obviously does not drop so rapidly as that for completely meaningless material. In a connected discourse, if a subject remembers one item this may, by the ordinary process of association, call up another one which is logically connected with it, whereas nonsense material involves merely rote memory. In either case the drop in the curve is rapid. The curves

¹ Dietze, A. A. "Factual Memory of Secondary School Pupils for a Short Article Which They Read a Single Time." *University of Pittsburgh Bulletin*, 1930, 427, 39-46.

shown were obtained where the material was not overlearned in the sense that repetitions over and above those necessary for immediate recall were given. If, in the Ebbinghaus type of experiment, it requires ten repetitions to memorize a list at the outset, but the subject is actually given eight additional repetitions, the drop in the curve will not be so profound. It is possible to overlearn material to such a degree that the curve will remain horizontal. The alphabet and the multiplication table have been overlearned to this extent.

Advertisements are seldom overlearned. A casual impression is made by the copy, and forgetting ensues rapidly, as it did in the curves just discussed. In the interest of decreasing the slope of the curve, additional repetitions may be given. With most advertising media there is no guarantee that the repetitions will actually reach the same individual. Direct mail, however, is a type of advertising which makes it possible to repeat the message to the same prospect. If a direct-mail follow-up program is to be used, the question arises as to the schedule according to which the repetitions should occur. The forgetting curves indicate that if a very long time elapses after the first weak impression the curve drops to the bottom, and from the memory standpoint it is necessary to begin all over again. It should be possible to provide the repetition before the curve has dropped so far, and thus build on material which is already partially retained. Some evidence indicating that this is possible has been obtained in an experiment directed specifically to this problem.

In the experiment material analogous to that used in advertising was employed and the general trend of the forgetting process was corroborated for this kind of material. In this experiment, likewise, the effects of early versus late follow-up procedures were investigated.² The subjects memorized fictitious trade names in connection with commodities. Fictitious names were used in order to circumvent the error introduced by varied familiarity with the names. If one list comprised a larger proportion of familiar names than did another list, the former would receive an undue advantage from the memory standpoint and the results would be impossible to interpret. In the main series the words were presented in pairs — the name of the commodity followed by a trade name. The

² Burr, H. E., and Dobell, E. M. "The Curve of Forgetting for Advertising Material," *Journal of Applied Psychology*, 1925, 9, 5-21.

subjects were instructed to remember them together so that later when they heard the name of the commodity they could recall the trade name that went with it. Examples would be "perfume — Petal" or "China — Mangone." In the recall test the word "perfume," for example, was presented and the subject attempted to recall "Petal," which went with it. The recall test was immediately followed by a recognition test in which the commodity name was given, together with four possible trade names from which the correct one was to be selected; for example, "Perfume — Arden, Petal, Lotus, Lotham." Recall and recognition tests were given for some of the words in the original list immediately after the initial presentation. Other words in the list were held in reserve and used in the procedure now to be described.

The original list was presented twice at a constant rate, in some cases verbally and in other cases on a screen at the front of the room by means of an exposure device. Immediately after the presentation certain of the trade names were tested by recall and recognition techniques to afford an indication of the immediate memory value of the material. Three days later some of the words in the original list were presented again to the subjects. This second presentation, however, included none of those on which they had already been checked at the first session. Immediately after this second presentation the subjects were tested by recall and recognition methods for some of the words which were in this second presentation and had thus been given to them twice. They were also checked on some words which were in the initial list but which had not been repeated since.

A similar procedure was carried out on the tenth day after the original presentation. At this time the subjects were tested for still other names in the original list which had not been presented meanwhile, and were tested also for words in the group which had been presented initially and on the third day but not tested at that time. On the tenth day they were given a second presentation of still other words which had occurred initially but which had not been encountered since, and were tested immediately for memory for certain of these. Finally, on the sixteenth day, still further words of the three types were tested: those which had been presented on the original day but which had not been checked upon since, those which had been presented on the first and third days with no subsequent consideration, and finally, those which had been presented

on the first and tenth days but not checked until the sixteenth day.

The results are summarized in Table 57. The entries indicate the

TABLE 57. EARLY AND LATE FOLLOW-UP

	Recall				Recognition			
	0 days	3 days	10 days	16 days	0 days	3 days	10 days	16 days
Initial.....	52	11	6	5	93	75	64	64
Initial and third .		57	22	16		99	90	80
Initial and tenth .			48	15			92	81

percentage of the actual words given which were recalled or recognized by the average subject. The figures across the first row are for the material which was given once, that is, with only an initial presentation and no follow-up. At the outset, 52 per cent were recalled, whereas after three days this figure dropped to 11 per cent, and on the tenth and sixteenth day the percentages were 6 and 5 respectively. These figures indicate the typical curve of forgetting with the rapid initial drop and the gradual leveling off. With recognition the results are somewhat similar, only the scores are higher throughout, and the drop in the curve is not so pronounced. In the next row are the results for early follow-up; that is, where the material had been presented initially and also on the third day. The immediate recall value for such material is 57 per cent and a week later drops to 22 per cent. However, this is not so rapid a drop as occurs in the three-day period for material which had been presented only once. The follow-up apparently helped. By the sixteenth day the retention had dropped to 16 per cent. Finally, the bottom row gives results for words which were presented initially, and shown a second time on the tenth day. Immediately thereafter their memory value was 48 per cent, and a week later 15 per cent. This 48 per cent recall after a late follow-up is to be contrasted with the 57 per cent which was the memory value immediately after early follow-up. Similarly the 15 per cent recall a week after the late follow-up may be compared with the 22 per cent a week after an early follow-up. The same tendency is borne out in the recognition data. Thus the figures all favor early follow-up in contrast with late, and this result is in accord with the theoretical considerations suggested earlier. The initial impression is forgotten in a few days, and a late follow-

up is equivalent to beginning *de novo*. When the follow-up occurs somewhat earlier, it still has some carry-over from the first impression on which to build, and the net result is superior. It is probable that if the early follow-up in the experiment had come before the third day, the results would have been still more striking. The implications of these results for advertising by direct mail are obvious. After one or two mailings which follow rather closely upon the initial letter, there is some carry-over on which to build, and the curve of forgetting will not descend so steeply. Thereafter it is not so important to have the subsequent letters close together.

Some additional light on the problem was obtained in an experiment with dummy magazines.¹ Some advertisements were presented twice or four times in quick succession, others with a day between repetitions, and still others with an intervening week or month. All were tested subsequently by the recognition method. The results are summarized in Table 58. In each case the figures

TABLE 58. INTERVAL BETWEEN REPETITIONS *

	Few Minutes Interval	One-Day Interval	One-Week Interval	One-Month Interval
Once.....	1.00	1.00	1.00	1.00
Twice.....	1.58	1.47	1.39	1.20
Four times.....	1.87	1.78	2.02	1.51

* Strong.

are reduced to terms of the single presentation. With an interval of a few minutes two presentations are 58 per cent better than a single one. On the other hand, if a day intervenes between the presentations the superiority drops to 47 per cent. Reading across the second row, it is seen that there is a consistent decrease in retention with increase of the interval. With four presentations the results do not follow such a direct trend, and there is one anomalous case. The results in general indicate the desirability of having the repetitions close together and thus corroborate the previous findings.

These principles can be applied most readily to direct mail advertising where the schedule can be controlled at will. In the newspaper it is possible to arrange a similar schedule, but there is

¹ Strong, E. K. "The Factors Affecting a Permanent Impression Developed through Repetition," *Journal of Experimental Psychology*, 1916, 1, 319-339.

less guarantee that a given prospect will see all the advertisements in the series. The situation is similar on the radio, with the possibility of an appropriate schedule but uncertainty as to the listeners. With magazines the minimum interval of a week is too long for the most effective follow-up arrangement.

SUMMARY

Apart from the general principles of association as facilitating the memory for the brand name in connection with a product, various special devices may serve this same end. Rhyme and alliteration have mnemonic value, especially when embodied in a slogan. The extent to which rhythm facilitates learning may be demonstrated experimentally, and it is found that three-part rhythms are superior to two-part.

The arousal of some activity in connection with a product helps impress it on the prospect. This may involve making some test of the product or sending in a coupon in order to secure some item which is offered. The contest is another form of activity; it may attract an extraordinarily large number of participants and thus impress them with the name of the concern sponsoring the contest. To this end numerous prizes of moderate size are preferable to a few large ones, because the average reader feels that he has a greater chance and is more inclined to participate. A free contest is preferable from the standpoint of good will.

A tangible object sent to the prospect instead of the usual sales letter may constitute a superior reminder of the product because it is less likely to be thrown away or filed immediately. If it is left lying on the desk a few days while a decision is being made as to its disposal it will have served its purpose. The reminder may derive additional value from its timeliness. Narrative in the form of either dialogue or story is more easily remembered than a mere exposition of the features of the product.

When one has been stimulated rather casually by items such as advertisements, forgetting ensues rapidly. The conventional curve of forgetting shows a rapid initial drop, followed by a subsequent leveling off unless the material is overlearned. Advertisements are seldom overlearned. In the case of direct mail, it is possible to control the repetitions of the advertisement received by the same prospect. Consideration of the curve of forgetting indicates the

desirability of sending the first few follow-up letters rather early and then spacing the repetitions more widely. An experiment with fictitious trade names associated with products bore out this point. An initial presentation and a follow-up three days later yielded an appreciably less steep curve of forgetting than an initial presentation and a follow-up after ten days. Experiments with dummy magazines showed that the advantage of two or four presentations of an advertisement to a single one was more pronounced when the interval between presentations was shorter.

CHAPTER XX

TRADE MARKS AND TRADE NAMES

TRADE marks and trade names as memory devices merit separate discussion because of their almost universal use in marketing. They do not constitute a recent development. Baker's Cocoa began in 1780, Pears Soap was christened in 1800, and Colgate's trade name dates from 1806. Recent years have brought a tremendous increase in the use of these devices. The trade mark and the trade name may well be discussed together because both employ similar psychological mechanisms. The latter involves mere words which can be printed or spoken, while the former comprises some geometrical shape or design with or without the inclusion of words. Both of them, however, serve to impress the memory of the consumer and to enable him to identify or request the brand which he wishes, and they may even arouse good will. In the discussion which follows, a sharp distinction will not be made between trade names and trade marks except when some principle applies to only one of them.

VALUE

Convenience. An outstanding advantage of the trade name is that it affords a simple means of identifying the product. If it were necessary to enter a store and ask for a bar of soap that is pale green, smells like apple blossoms, is two and one-half inches long, and slightly convex on each of the larger surfaces, the consumer would have more difficulty in securing what he wanted than if he merely named the brand. This feature is especially important in the light of our modern tempo and the apparent necessity of securing the product in short order. An experiment indicated the extent to which the trade name speeds up the sale. The method consisted of watching customers in the store without attracting their attention, recording with a stop watch the time spent in making a purchase and noting whether or not the trade name was used. On the average, twenty-three seconds was required to buy a bottle of canned goods when the trade name was not used, whereas nine

seconds sufficed when the customer bought by the brand name. With reference to bread the corresponding figures were twenty-one seconds and eleven seconds. Thus, the ease of identifying the product is an important advantage of the trade mark or the trade name.

Protection. Another value of the label is that it protects the manufacturer and the consumer. If the manufacturer has built up good will in connection with the product and the consumer is favorably disposed toward that brand, the trade name or trade mark makes it possible for the former to market the product in which he has invested much advertising, and for the latter to secure the brand of goods which he actually wants. If it were necessary to identify the brand by its external appearance or its odor, the consumer would frequently get some competing brand rather than the one which he wanted. Dealers often try to unload some brand other than the one which the customer requests. This substitution would be greatly facilitated by the absence of trade names and marks.

Infringements. This consideration of protection leads to the whole question of infringements, which is beyond the scope of the present work and falls more strictly in the field of legal psychology.¹ It may be mentioned in passing, however, that the confusion between trade marks or names resolves itself into a problem in the psychology of recognition. It is a question of the extent to which a person who has seen a name, such as Coca Cola, will be confused when he sees a second such as Chero Cola, and think that it is the one which he saw initially. It is possible to measure this degree of confusion by psychological experiments. Briefly, the technique involves presenting a number of names serially, for constant lengths of time. The subjects are instructed to remember them. Then a second list is presented containing some of the original names, some new ones, and some which are similar but not identical. In this second list, subjects are required to state whether or not each word was presented in the first list. If they see Chero Cola in the second list, and state that they saw it in the first, whereas Coco Cola actually was in the first list, the result indicates "confusion." The proportion of people who are confused on a particular item may be compared with the proportion confused on straightforward recognition, where there is nothing equivocal about the names. This

¹ Burt, H. E. *Legal Psychology*, Chap. XX. New York, Prentice-Hall, 1931.

latter index may be termed "normal confusion." The technique may be applied to confusion between brands, names of mercantile establishments, or trade marks involving no words at all. For the first two of these the experiment may employ visual or verbal presentation. For the last, a visual technique only may be used.

Good Will. Still further value of the trade mark or name lies in the cumulative effect of good will and the reputation of the firm which may be built up in connection with a name. If such a name has been part of an individual's environment since childhood he feels that it represents an old reliable company, and that any product which they manufacture will be satisfactory. Many a concern could stop advertising altogether and coast along for some time on the reputation which it has built up. But the time would come when familiarity with that name would decrease and the cumulative effect of its previous advertising would be lost. Many organizations continue to advertise mainly in order to keep their name before the public and to maintain their reputation, without attempting to introduce much in the way of additional reasons why their product should be purchased.

Family Names. The most convincing evidence of this cumulative effect of good will is brought out in cases where a new product marketed under the old name has unexpected success. After the Rubberset people had been making shaving brushes for some time and had built up a favorable attitude on the part of users of the product, toothbrushes were added to their line. A modest advertising campaign was accordingly launched, but before it was well under way it became necessary to cancel the advertising until the manufacturing department could catch up on production. The reputation of the Rubberset name sold the toothbrushes far beyond expectation. Many a new product is marketed under an old name in an effort to capitalize the existing good will. Hygeia Baby Food, such as strained vegetables, was named thus in an effort to utilize the reputation created earlier by the Hygeia nursing bottle. The Arrow Company, after building up a reputation in connection with collars and shirts, has marketed neckties under the same name. If the new product is similar to the old the transfer of good will may be all the easier, as in the case of several kinds of soup put out by the same manufacturer or even a series of food products marketed under the same house name.

Similar psychological mechanisms may operate with a famous

artist or entertainer appearing on a commercial radio program. The audience has developed an interest in this individual in an entirely different connection — for example, on the screen — but when he is associated with the product in the sponsored program it is possible for that interest to carry over to the product. The underlying mechanism in many of these cases is conditioning. The entertainer is the unconditioned stimulus which produces the favorable attitude on the part of the listener. The product occurring in connection with the entertainer becomes the conditioned stimulus.

The good will accruing to a trade name or mark or label may be further demonstrated by noting the comparative preferences for different brands of a product when the subject knows the brand name, and when this is eliminated and he is compelled to make a decision on the basis of the product alone. The average consumer if asked which brand of perfume or cigarettes he or she prefers will give an unequivocal answer, and if questioned further will assert that the preference is actually based on the quality of the product. In some instances, however, experiments have indicated that the preference was not due to the quality but to advertising or habit or imitation. Such problems may be approached by the "blindfold test" technique.

Blindfold Tests. When a group of women were interrogated, 60 per cent of them expressed a preference for various foreign brands of perfume. They were then tested with three domestic and three imported perfumes in unlabeled bottles, making first, second, and third choices, purely on the basis of the fragrance. Sixty out of the hundred women chose the domestic perfume when unlabeled, although two thirds of these had previously indicated a preference for the foreign brands. Obviously the foreign label rather than the intrinsic quality of the product had determined the initial choice.

A similar experiment, conducted by a scientist rather than by a commercial demonstrator, showed that cigarette smokers could not identify their own brand. From a large group fifty subjects were selected who smoked several cigarettes a day regularly, who had smoked for at least a year, and who actually preferred a particular brand. Each subject, blindfolded, was given his favorite brand along with three others. He selected one at random by groping for it, smoked it as far as he wished, and then attempted to name it. After several minutes' rest he selected another one and proceeded as before. He knew merely that his favorite brand was among the

four which he was to smoke. All the subjects were given Camels, Luckies, and Chesterfields. If the subject's favorite brand was Twenty Grand that was included, and the same was done with reference to Spuds. If his favorite was one of the first three, then either Twenty Grand or Spuds was included at random to make up the fourth cigarette. The results are summarized in Table 59. The

TABLE 59. BLINDFOLD TEST OF CIGARETTE BRANDS *

	Camel	Lucky	Chester- field	Twenty Grand	Spud	Misc.
Camel.....	31	14	38	6	2	10
Lucky.....	19	41	21	4	0	14
Chesterfield.....	27	23	33	2	0	15
Twenty Grand....	38	26	3	17	0	15
Spud.....	0		6	0	76	11

* Husband.

data in any row give the percentage of the cases in which the cigarette indicated at the left was stated to be the one indicated at the head of the column. For instance, Camels were correctly identified as Camels in 31 per cent of the trials, but were considered to be Luckies in 14 per cent and to be Chesterfields in 38 per cent of the cases. The figures in italics on the diagonal represent the extent of correct identification, and for the first four brands in question average 31 per cent. Spuds constitute a special case because of the pronounced menthol taste, but were included because some subjects expressed a preference for them. If several brands of mentholated cigarettes become popular, a blindfold test between those brands would prove interesting. Confining the analysis to the other four brands, any one of them should be recognized about 25 per cent of the time by pure accident. The average of 31 per cent just mentioned is only slightly above chance expectation. Obviously if cigarette smokers cannot recognize the leading brands by gustatory or olfactory cues alone, their personal brand preferences cannot be due to those criteria but are the result merely of the name.¹ Many people doubtless have a sincere belief that they prefer some particular brand of a product. What often occurs is that they think they like this particular brand, and when they see the label they supplement the actual sensations they receive from the product with a little imagination. The advertiser may build

¹ Husband, R. W., and Godfrey, J. "An Experimental Study of Cigarette Identification," *Journal of Applied Psychology*, 1934, 18, 220-223.

up these preferences by his copy, which induces the consumers to try the product and notice how mild or sweet or delectable it is. If they subsequently purchase a commodity with the advertised label, they are not likely to become disillusioned. Experiments of this sort indicate the importance of trade names or trade-marks in creating preferences and maintaining good will.

Financial Statements. Some concerns do value their trade names rather highly, as indicated by their financial statements. Among the large figures are \$6,000,000 for Uneeda Biscuit, \$5,000,000 for Coco Cola, \$1,000,000 for Baker's, \$4,000,000 for the various trade marks used by the American Tobacco Company, \$8,000,000 for Royal Baking Powder, \$10,000,000 for Hart-Schaffner and Marx. The makers of Gold Dust are reputed to have said that they would not sell the trade mark featuring the twins for \$10,000,000. While the foregoing are merely estimates and may also reflect some inscrutable process of accounting, there are concrete instances of the sale of trade marks. Aunt Jemima was sold to Quaker Oats for \$4,000,000. Sun-Maid was transferred to a group of California banks to satisfy an indebtedness. The banks agreed not to use the name with raisins or dried fruit, but felt that public familiarity with the name was worth about \$5,600,000, which was the amount involved.

CLASSES OF THE TRADE NAMES

It is not out of place to mention briefly some of the different kinds of trade names which are adopted. This enumeration may throw light on some of the psychological considerations to be raised later.

Some names are simply those of the manufacturer or his ancestors, such as Colgate, Williams, Baker's, Ingersoll. Others are geographical names, such as Hawaiian Pineapple and Boston Garters. "High-quality" words may be used to suggest some characteristic of the product, such as Perfection, Ideal, Royal, Premier, Gold Dust. Some artificially coined names have no meaning whatever, such as Kodak, B.V.D., and Karo, although they may be made from the initials of the firm, like Socony for Standard Oil Company of New York, or Nabisco for National Biscuit Company. Other artificially coined names have meaning and attempt to embody some selling point in the name itself. Holeproof implies certain qualities of the socks. Similarly Wearever, Sureon, Slipnot, and Sunkist expound the

virtues of the aluminum, glasses, rubber heels, or fruit, as well as affording a convenient designation.

ESSENTIALS OF A TRADE NAME OR MARK

Short. Certain characteristics of a trade name or a trade mark are essential from the psychological standpoint. In the first place, a name should be comparatively short. The reader of modern advertising is proceeding at a rapid rate, especially if he is scanning the advertisements in a newspaper, and consequently a long trade name is inadvisable. Note was made earlier of the limitations of the range of attention. A person cannot attend normally to more than half a dozen discrete items in a single act of attention. A long trade name, consequently, would require the reader to glance at it several times in order to remember it, and he is not inclined to make the effort. The short, vigorous name may impress him at a single glance. No one could miss the comparative difficulty of trade names in the following pairs: Kelly Springfield Pneumatic Tires versus Continental Tires, Barrington Hall Bakerized Steel Cut Coffee versus White House Coffee, and Mennen's Borated Talcum Powder versus Mennen's Talc.

Pronunciation. A second desirable feature of a name is ease of pronunciation. When a person is memorizing words he often repeats them verbally to himself in order to reinforce the process. If he does not know how to pronounce a trade name, obviously he cannot repeat it to himself for this purpose. Thus the difficulty of pronunciation will militate against the learning of the name and its retention. The consumer may also hesitate to use the name, even though he does remember it, if he has some doubt regarding its pronunciation. The average Anglo-Saxon entering a drugstore will hesitate to ask for Baume Analgésique Bengué for fear that somebody will laugh at his linguistic efforts. Consequently, unless the product is visible on the shelf and he can point to it, he asks for Absorbine Junior or Witch Hazel. When Bourjois went on the air with an "Evening in Paris" sketch advertising their cosmetics the listeners, unable to remember or even pronounce Bourjois, began to ask their druggists for Evening in Paris cosmetics. The company recognized their opportunity and launched an Evening in Paris brand which henceforth was their best seller. An allusion was made earlier to the fact that Mr. Ghirardelli, who manufactures chocolates,

estimates that the "h" in his name set him back about a million dollars because of the added difficulty in pronunciation.

Examples of insurmountable trade names are easy to obtain: Caementium, Sandlogen, Cliquot, Van Raalte, Djer-Kiss, Mentholatum, Sieger's Angostura Bitters, Riz la Croix. By way of contrast the following names are short and pronunciation is unequivocal: Victor, Kodak, Presto, Ivory, Jello, Lux. It is a reflection on a trade name when the advertiser has to append the pronunciation in brackets.

The pronunciation of the name presents a converse problem when the advertising is done by radio. In printed copy it is necessary to tell the consumer how to pronounce a name so that he can ask for it intelligently; on the radio he hears it pronounced correctly, but must have it spelled out so that he can recognize it when he sees it on the shelf or reads about it in an advertisement. Fortunate indeed is the manufacturer whose product can be mentioned by any announcer so that the listeners will understand it without the necessity of having it spelled. While the radio presentation is a valuable supplement to printed advertising in helping to rectify the handicap of the christening of the product, the delay in spelling the name is unfortunate because radio advertising moves at a fixed rate. On the printed page the reader who has already become familiar with the name does not have to read the pronunciation in brackets at each successive repetition. On the radio the listener has to sit through the spelling out of the word even though he has heard that same announcement many times.

An investigation was made of the various ways in which a series of trade names were pronounced. The technique involved merely presenting the typed names and recording the subject's pronunciation in phonetic symbols, as well as the reaction time for his response. Names such as the following were pronounced by a considerable proportion of the subjects in five different ways: Molle, Baume Bengué, Cailler, Delco-Remy, Van Raalte. The reaction time averaged between three and four seconds, reflecting, doubtless, a tendency to wonder about the pronunciation prior to speaking. At the other extreme words like Ford, Hot-Point, Chrysler, Ivory, Firestone, and Valspar were pronounced in only one way by everybody and the reaction was immediate.

Unique. It is desirable for the trade name or mark to be unique and difficult to imitate. This feature harks back to the previous dis-

cussion of infringements. The writer knows of one instance in which a product was named after a member of its firm, and a competing concern went to considerable length to secure a vice-president whose name was similar to that of the other product. When they adopted this vice-president's name as the trade name they dodged litigation as to infringement, but undoubtedly created confusion for the "unwary purchaser." It is difficult to select a trade mark or trade name which cannot be imitated. The following are reasonably successful efforts: Log Cabin Maple Syrup has a container which fits in with the name and makes it harder to imitate both the name and the can. If the name lends itself to symbolizing in a picture, as in the Thirsty Fibre paper towel, this feature tends to keep the name more distinctive.

Appropriate. Trade names which are absurd or inappropriate should be avoided. It is more difficult to associate them with a product, so that they are less likely to be remembered, or they may arouse unpleasant imagery which will create a negative attitude toward the product (cf. page 302). A breakfast food was named "It" and an expensive type of hat was marketed as "Smile." These names would not be associated readily with the commodities in question. Some names of food products such as Flaketa or Eatabita, which probably took their cue from Uneeda, are rather trivial. The design of a trade mark is subject to the same considerations. If a product is delicate or artistic a coarse, angular design would be undesirable. Occasionally an ingenious design for the mark will have good mnemonic value and tie up with the product. Ladapak Stepladders, for instance, has a design in which the A's in the name are modified drawings of stepladders.

Miscellaneous. In occasional instances some unusual consideration in the selection of a trade mark arises in a special locality or with some special group of prospects. A product did not sell in China because of a dog on the trade mark and the fact that in that region a dog represented an evil spirit. A toilet preparation failed to catch the theatrical market because the peacock on the label suggested bad luck to actors. It is probable that many instances of this sort never reach the light of day. The number of people who consult numerologists, phrenologists, and astrologers, even though discounted for the merely curious, indicates that superstition is still rampant. It is possible that "hex" symbols inadvertently embodied in trade marks may be having an unsuspected effect upon sales.

It is desirable to display the trade mark in the advertisement in much the same way that it is to be displayed in the store, in order to facilitate recognition. The sale is often determined by the label which catches the customer's attention. If the one which he has seen advertised is displayed in the same fashion, it will remind him of the earlier experience and have an advantage over its competitors. If, however, no package resembles what the customer has seen in the advertisement, the different brands will compete on equal terms, and purchasing will be a matter of the sheer attention value of the label rather than the effect of prior advertising.

SHAPE OF TRADE MARK

A minor problem arises in connection with the geometrical shape of a trade mark as affecting its memory value. An experimental approach was made by using abstract designs of black paper of equal area pasted on a white ground in such a way that the shape was presumably the only variable involved. A series of such cards was presented, and the subject was required to recognize them in a second list which contained some of the original shapes and some new ones. The percentage of the subjects who recognized a particular card was taken as its memory score. Excerpts from the results are summarized in Figure 7. The shapes in the upper portion of the figure were among those which were most readily remembered. The

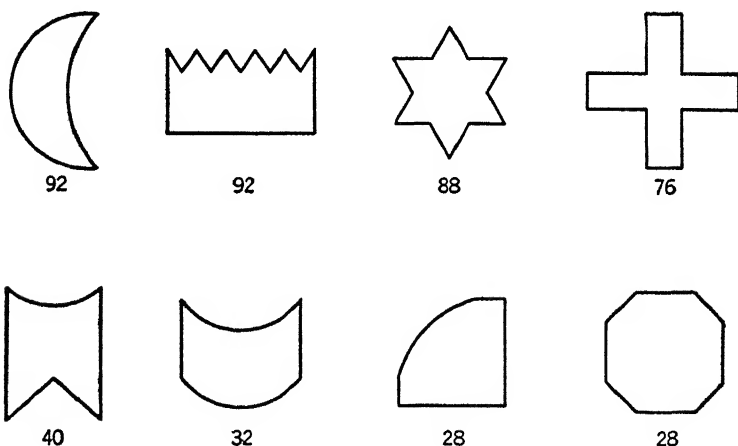


FIGURE 7

number adjoining each indicates the percentage of the subjects by whom it was correctly recognized. Those in the lower portion of the figure were much more difficult to recognize, as indicated by the adjacent percentages. The difference between these extremes is obvious from a glance at the designs. The upper ones are a crescent, a crown, a star, and a cross. It is difficult to say what the lower ones represent. The ability to name the figure obviously facilitates its retention. Consequently, other things being equal, if one is designing a shape for a trade mark it would be advisable to adopt one which is familiar and could be named. The reader would be more likely to remember it than if it were entirely meaningless.¹

ASPECTS OF TRADE MARKS REMEMBERED

An experiment brought out the comparative memory value of different aspects of the trade name. The four features which play a prominent rôle in trade marks were investigated separately. In one series twenty-six pictures were presented and the number of repetitions necessary for recognition or recall was determined. The material in another series consisted of geometrical or nondescript shapes. A third comprised words, and a fourth merely syllables. The data are summarized in Table 60. The picture could be recog-

TABLE 60. MEMORY FOR FEATURES OF TRADE MARK *

	Presentations Necessary for	
	Recognition	Recall
Picture.....	1.0	3.4
Shape.....	1.8	4.0
Words.....	2.6	4.7
Syllables.....:	5.8	7.1

* Tipper.

nized in one presentation on the average, although over three were required to ensure recall. Shapes were more difficult, words still more so, and syllables were the worst of all from a memory standpoint. The implication is that the trade mark embodying a picture will make a stronger appeal and be more easily remembered than one which merely includes syllables, particularly meaningless ones.²

¹ Hollingworth, H. L. *Advertising and Selling*, p. 212 ff.

² Tipper, H., et al. *The Principles of Advertising*, p. 47. New York, Ronald, 1921.

ASSOCIATING TRADE NAME, TRADE MARK, OR SLOGAN
WITH THE COMMODITY

A point which was mentioned earlier in connection with slogans should be emphasized again in the present connection: the importance of getting the trade mark or name associated with the product itself. In many instances the consumer remembers the name or slogan satisfactorily but does not connect it with the product because of some failure on the part of the advertising. This failure is brought out in the conventional experiment in which subjects are given trade names or slogans and asked to identify the product.¹ A few of the common errors follow: "P.A." suggested a cigar; the cheerful negro in the Cream of Wheat advertisements was variously associated with soup, baking powder, shredded wheat, and cocoa; "Rubberset" was sometimes typewriters, rubber heels, or automobiles; "Hasn't scratched yet," the slogan for Bon Ami Cleanser, was identified with underwear and fountain pens; "99.44% pure" denoted alcohol or baking powder; "1847," the trade mark for silverware, was confused with whiskey and gin; "Two-in-One" was often confused with "Three-in-One"; "Etna" was sometimes supposed to be a cigarette, and at other times a kind of biscuit. These advertisements had failed to tie up the trade name or slogan with the product.

In another study twenty-five trade marks were printed in black and white with the name removed,² and about two thousand persons were asked to identify them. Those correctly identified with greatest frequency were Old Dutch Cleanser, Maxwell House Coffee, Bell Telephone, and Baker's Chocolate, while the least effective were Hartford Insurance and Chase Brass. Obviously some of the marks had either been more closely tied up with the product or else had been better impressed upon the public by repetition. Further analysis reveals that men in white-collar occupations on the average identified about 17 marks correctly, men in other types of occupations 15, housewives 13, and working girls 14. Men did better than women on the Cadillac trade mark, and women excelled the men on Bon Ami and things pertaining to the household. The younger persons of both sexes did better generally with Cadillac, Plymouth, Fisher, Mobiloil, and Texaco, whereas the older ones exceeded the

¹ Adams, H. F. *Advertising and Its Mental Laws*, p. 203.

² Newell-Emmett Company, mimeographed.

younger in recognizing Prudential, Sherwin-Williams, and Old Dutch. These trends reflect the interest in the product as influenced by age or sex.

In another study sixty housewives were interviewed as to their familiarity with certain slogans or other selling points in current advertisements.¹ For example, the "I am 39 years old" feature was identified as connected with Lux by 60 per cent of them, but 36 per cent were uncertain and 4 per cent picked other types of soap. Similarly, the slogan "The kind of girls men like" was identified correctly as Camay 26 per cent of the time, but 56 per cent were uncertain and Palmolive, Ivory, and Woodbury's drew 8, 6, and 4 per cent respectively. The half-face test in connection with Woodbury's Soap was identified by 42 per cent, while 58 per cent missed the point. The slogan "Keep your eye on your husband" was identified as Gillette Razors 18 per cent of the time, but some persons associated it with Kellogg's Bran, Ovaltine, or Esso, and 76 per cent could not identify it at all. The indications are that the slogans had not been very strongly associated with the things that they were advertising.

One other study of slogans may be mentioned² in which the subject was simply asked to identify particular slogans by mentioning the brands advertised. The following were correctly identified by over 70 per cent of the subjects: "His master's voice," "It floats," "Candy mint with the hole," "Children cry for it," "Chases dirt," "Not a cough in a carload," and "It's toasted." At the other extreme with less than 15 per cent correct responses were "Pure as the pines," "The light that never fails," "You just know she wears them," "The coffee that lets you sleep," and "Best in the long run." These findings serve to emphasize the importance of tying up the slogan or trade name with the commodity advertised. It is unfortunate if the readers remember the slogan but do not remember what it is all about.

Contiguity of Name and Slogan. In some of the foregoing instances the slogan would make no contribution whatever in selling the product in question. Much depends also on the extent to which the slogan and the name of the product are displayed in close proximity. If the slogan is in one part of the advertisement and the trade

¹ Link, H. C. "The Housewife and Your Advertisement," *Advertising and Selling*, April 14, 1932, 18, 25 ff.

² Hepner, H. W. *Psychology in Modern Business*, p. 549. New York, Prentice-Hall, 1930.

name in another, the reader may get the former and not the latter. Those cases where the name is part of the slogan itself are especially favorable because if the reader remembers the slogan he cannot escape the trade name.

Antiquity of Picture. If the trade mark embodies a picture, the latter should be selected so that it will stand the test of time. If styles change so that the picture looks distinctly out of date, an unfavorable attitude as to the antiquity of the product may be created. To be sure, it may be desirable to show that the firm was in business for a long while, but in some cases this attempt simply creates the out-of-date idea. Cough drops still carry the Smith Brothers with their whiskers, although the modern pharmacist is smooth-faced. The Victrola trade mark still employs the fox terrier in an era when Airedales, Scotties, and bulls are more popular. The trade character is somewhat more flexible than the picture in the trade mark proper. The Cream of Wheat negro or Aunt Jemima or the colonel who talks about the Model Tobacco can be shown in various settings and may even change costume as time goes on. Another solution is to choose a character or figure which is so remote in history that it cannot go appreciably farther out of date.

SELECTING A TRADE NAME

It might be well to describe a typical experiment in which the selection of a trade name for a food product was approached systematically. Suggestions were secured by a contest and the names submitted were sifted by a group of judges, until twenty-one survived from which it was desired to make the final selection. Interviewers were then placed in retail stores and enlisted the co-operation of the women customers who did not seem to be in too much of a rush. The interviewer explained that they were selecting a trade name for a new product and wished to get a name which would be most agreeable to women who would be buying the product. If the interviewee seemed willing to co-operate she was first given a slip of paper containing the twenty-one names, which she read at a standard rate while the interviewer tapped rhythmically with his pencil. She immediately recalled as many of these names as possible. The lists were given in a different order to the different women who were interviewed, so that errors due to primacy and recency would average out. Then the woman was asked to look through the list and check

any words which she would hesitate to pronounce. She looked at the names a third time and marked plus all those which were agreeable to her and minus any which were disagreeable. She could use a double plus or minus to indicate extremes of feeling. Then she was required to write after each name what commodity it suggested, in order to check the relevancy of the name. Finally she was told what the product was, and asked to pick out the names which she thought would be most desirable for it. In this way data were made available on the memory value, the pronunciation, the pleasingness, the relevancy, and the general rating.¹ Similar results might be obtained by house-to-house interviews or any other procedure for getting in touch with persons who would be typical of the prospective consumers of the product.

The package or the container may be studied to advantage in somewhat similar fashion. When the Kellogg Company launched their Rice Krispies in a new package, they submitted twenty-five designs to three thousand women to determine the one which they preferred. The winner and an alternate were given sales tests on the shelves of eighteen self-service stores in three Middle Western cities before the final package was adopted.²

A study of preference was likewise made for small glass containers.³ Six containers, supposedly for caviar, were used, and customers in stores were asked to select them in order of preference. The one which was most frequently selected was chosen in the majority of the cases because it looked larger or else could be used again. Similarly, in a series of containers for herring, the "use-again" feature as well as attractiveness determined the winner. This whole matter of selecting trade marks, trade names, slogans, packages, and containers which have the most favorable effect on typical purchasers is directly in accord with the earlier discussion of consumer analysis (Chapter III). The importance of ascertaining what the consumer wanted and adapting the program accordingly was stressed. This notion of finding out what the consumer wants may very well be extended to the trade name and the container for the product.

¹ Cf. Starch, D. *Principles of Advertising*, p. 693 ff.

² Anon. "Improved Package Sets Keynote in New Kellogg Campaign," *Printers' Ink*, July 21, 1932, 160, 10.

³ Hovde, H. T. "Consumer Preference for Small Glass Containers," *Journal of Applied Psychology*, 1931, 15, 346-357.

SUMMARY

Trade marks and trade names are used almost universally as memory devices. One of their advantages is convenience for the consumer. Another is protection of the manufacturer who has invested heavily in the promotion of his product and protection of the customer who wishes a certain brand and not a substitute. Similarities in names or marks often lead to legal action regarding infringements, and it is possible to measure the confusion between a name and an alleged infringement by systematic experiments involving recognition techniques.

Another value of the trade name lies in the cumulative effect of good will built up through a period of advertising coupled with good quality of the product. When numerous products are marketed under a family name the reputation of a familiar item carries over to one with which the prospect is unacquainted but which bears the same name. The favorable attitude already existing toward an artist or entertainer may be transferred to the concern which sponsors his broadcast. The extent to which consumers often select a product on the basis of the name rather than the quality alone can be demonstrated by blindfold tests. A majority of women who purported to prefer imported perfumes were unable to distinguish them from domestic brands by odor alone. Cigarette smokers were able to identify leading brands, including their favorite, by olfactory or gustatory cues alone, with only slightly greater frequency than would be expected by mere accident. Some concerns value their trade mark as worth several million dollars, and in a few cases a trade mark has been sold for a figure of that magnitude.

A trade name should be short in view of modern habits of hasty reading. It should be easy to pronounce, lest the consumer hesitate to use it in a retail store for fear of embarrassment when mispronouncing. It is an unfortunate reflection on a name when it is necessary to append the pronunciation in brackets. The converse is true on the radio, and is even more serious because the reader can omit the pronunciation in brackets if he does not need it, but the listener must wait while the announcer spells out the name for the hundredth time. The name or mark should be unique, so that it cannot readily be imitated. Absurd or inappropriate names should be avoided because they are more difficult to associate with the product, and they may arouse unpleasant imagery which will be

transferred to the product. The trade mark should be displayed in the advertisement in the same way in which it will appear in the store, in order to facilitate recognition in the latter situation.

In selecting a geometrical shape for a trade mark, note should be made of the experimental finding that shapes which can be named are more easily remembered. There is experimental evidence, however, that pictures are more easily recognized than shapes or syllables.

Advertising should make definite efforts to tie up the trade mark, trade name, or slogan with the product. Typical association tests, in which brand names are given and the subjects are required to state the product, bring out many unexpected failures. The slogan and the name should appear contiguously in the advertisement in the interest of facilitating their association. If the slogan includes the name, so much the better. If the trade mark is to include a picture, one should be selected which will not eventually appear out of date and suggest that the product is likewise.

Some concerns have gone about the business of selecting a new trade name systematically by interviewing numerous consumers regarding a number of alternatives and testing, in a rough way, their memory value, pronunciation, pleasingness, and relevancy. Similar procedures have been followed with reference to package design.

CHAPTER XXI

RADIO AS AN ADVERTISING MEDIUM

INTRODUCTION

IN THE present chapter radio alone will be treated. This emphasis does not necessarily imply that radio is a superior advertising medium. It is a recently developed medium, however, and involves more unsolved problems. It is unique among media in its utilization of the purely auditory mode of sensation while the visual aspect is left entirely to the customer's imagination. The temporal relations, such as the length or tempo of the advertising script, are controlled by the advertiser and not by the prospect. Considerations such as these raise special problems of attention and memory.¹

HISTORICAL

In 1914 a few radio amateurs listening to news dispatches from Cape Cod in telegraph code were surprised to hear the sound of a violin mixed in. Fifteen years later Heifetz received fifteen thousand dollars for a half-hour broadcast at the radio début of a brand of coffee. In that brief period radio developed from nothing, as far as broadcasting of music or entertainment was concerned, to one of the outstanding advertising media. In 1920 KDKA went on the air for the purpose of selling receiving sets. A little later the managers of stores and newspapers who thought they would profit by institutional advertising inaugurated their own radio stations, and so did some radio or phonograph dealers. By 1924 the boom assumed tremendous proportions, but the only way to get on the air was to have one's own station. The manufacturers of transmitting apparatus could not keep up with the demand, and as a result of this pressure certain stations began to sell time. For the first year the station which later became WEAf was the only one following this policy. The commercial broadcast at this era consisted of a five- or ten-minute educational talk with certain fairly well concealed

¹ For a bibliography on radio broadcasting which includes many references that comprise psychological material see: Columbia Broadcasting System, Market Research Department, *Radio Broadcasting System Bibliography*, March, 1936 (mimeographed). Brief annotations are given for many of the references.

propaganda. The station had one big week in which it sold three talks at one hundred dollars each, and began to discuss saturation point.

Then came the idea of entertainment. Browning King had an orchestra play for an hour with a courtesy announcement before and after. The cost of broadcasting began to be a factor by this time, and as the supply of free talent became inadequate, one station initiated the procedure of giving away time in return for talent furnished by the advertiser. This policy led to the present-day system of commercial programs and sustaining programs.

With expansion in the number of stations and with increase of power, interference became a problem, so that the Federal Radio Commission stepped in and assigned frequencies. The networks were then organized, and radio advertising took its place among the other important media. Estimates are that at present some seventy-eight million persons in this country listen more or less habitually, and that on occasion twenty million may listen to a single broadcast on the networks. Almost twenty-four million homes (74 per cent of the total) are equipped with receivers.¹

RADIO'S APPEAL

Objective Factors. The present chapter is not the place for a discussion of the whole psychology of radio as a social institution. The advertiser, nevertheless, when using this medium, is interested in its effect upon the listener, and should be somewhat concerned with the psychological factors underlying the popular interest in this institution. He is concerned with the selection of programs which will command a large audience, and to that end he may find profit in a discussion of the psychological factors which constitute radio's popularity and give it the important place in society which it holds.

Broadly speaking, its appeal may be traced to both objective and subjective factors. Among the former is its accessibility. The actual effort of throwing a switch and turning a dial is so slight that it seldom deters a person from securing this type of entertainment if he wants it, whereas many other media necessitate walking some distance to a news-stand or at least going to the telephone. Radio entertainment is also convenient. The listener does not have to

¹ Cantril, H., and Allport, G. W. *The Psychology of Radio*, p. 3. *Radio in 1936*, pp. 1-17. Columbia Broadcasting System. New York, Harper's, 1935.

dress up as when "going out." If one is being entertained, furthermore he does not have to continue the process unless he wishes. Most people hesitate to "walk out" during a lecture or concert, but they do so at will during a broadcast because no one is the wiser and there is no semblance of offending the speaker or overstepping any of the social amenities. Another objective factor is that radio is, for most practical purposes, free. In some countries, it is true, the listeners are charged a license fee, which is not excessive but which might be a deterring factor in a few cases. The freeness in our country is only apparent, of course, because one has to buy his set, and he uses up tubes and electric power. One other objective feature is the variety which is available on the radio. In comparison with other types of entertainment it is more analogous to vaudeville, in which the individual can pick what he wishes and it is easier to escape the unpalatable program.

Relief from Ennui. Greater interest from the psychological standpoint accrues to the subjective features which constitute radio's appeal to the listener. One of these lies in the field of attention. Radio affords a very effective means of distracting attention from one's own ennui. Before its advent many people spent hours daily killing time in a rather unsatisfactory and unpleasant manner, simply not knowing what to do with themselves and making a vain effort to escape. This problem would have been still more acute in recent years had it not been for the development of this new medium. The modern social trend appears to be in the direction of shorter working periods and hence greater leisure for the average individual, so that radio fills a definite place.

Low Level of Attention. Another aspect of attention in connection with radio is that one can listen without much concentration. Reading a magazine or newspaper requires effort. A person may daydream, of course, while reading, but eventually he realizes that he cannot recall what he has read and becomes somewhat disgruntled, so that the whole experience is unsatisfactory. The situation is a trifle better when looking at pictures, which one may grasp without much concentration. The radio, however, is much more favorable in this respect because, while it can be present in the background without making any strenuous demands upon the attention, it still can be perceived as part of one's present experience. The attention devoted to it may be of the involuntary type in contrast with the voluntary which is required in reading printed material.

Adaptation. Some of our habits with reference to listening and doing other things simultaneously are subject to modification or adaptation. The housewife turns on the radio while performing the more routine duties of the home. A student may develop habits of studying with the radio turned low. It is possible that his studying is less efficient, but many students find it pleasant. It will be shown later that the amount of listening one does while working at something else depends on the type of program; that is, whether it is music or involves speaking.

Imagery and Association. One of the principal factors which constitutes the appeal of radio is the way in which it utilizes imagery and association. With the absence of visual stimulation, the listener has to employ his own imagery and derives pleasure from this creative activity. The spoken word has more possibilities of stimulating imagery than does the written word. Changes in voice may arouse subtle associations and at least give some notion of the emotional condition of the person who is speaking or singing. Surveys of the audience indicate that many of them do imagine how the singer or entertainer appears. This imaginative effort often makes the program more interesting than it would be if observed on the actual stage. In many situations stark realism is less interesting than something more remote which demands imagination on the part of the observer. For this reason, some people find the talking pictures less satisfying than the silent ones, and one may realize that this fact is true when he sees the occasional picture which is presented essentially without audible conversation. The situation is somewhat analogous to the esthetic aspect of the marble statue as compared with waxwork: the latter is much more like the individual whom it represents, but the statue keeps the observer at a certain "psychic" distance, which enhances his artistic experience. The radio in similar fashion affords the listener an opportunity to use his own imagination and derive some satisfaction from the process.

The listener may catch the emotion of the speaker sufficiently to imitate it himself. The sound effects contribute definitely to the imagery. The average listener hearing the whirring of an airplane motor or the sound of a storm pictures it vividly himself.

Apart from the sheer pleasure of using one's imagination, the things imagined may bring with them pleasant feelings of their own. The popularity, among older people at least, of "old songs" may be

attributed to the fact that these songs arouse imagery and memories of one's own past; for instance, a certain selection was current at the time a listener was going to dances in the senior year of high school, or was sung at a vacation resort during some adolescent summer. The whole experience comes back with all its pleasant memories. The imagery also functions in another way to give a vicarious fulfillment of unobtainable desires. One who has impossible Hollywood aspirations can at least hear music by Hollywood personages. A girl whose friends of the opposite sex are very limited may listen to the crooner sing directly "to her." A child who receives little personal attention from his parents may secure fulfillment of his desires by listening to some radio artist singing to and chatting with the children in parental fashion. One who craves adventure may achieve it vicariously by following the vicissitudes of a radio hero or collaborating with the cast in unraveling some crime on which the detectives are working.

Emotion. It is a well-known psychological principle that posture or muscular adjustment influences emotional conditions. One can accentuate his anger by clenching his fists and gritting his teeth, and can produce the opposite effect by relaxation. If the speaker on the radio becomes excited, the listener also becomes tense and assumes a posture which accentuates his emotional condition. A similar tendency takes place if the broadcast includes anger, sympathy, or other emotional states. Humor is another mild emotional experience which plays a considerable rôle in radio entertainment. Persons go far out of their way in an effort to secure a laugh, as may be seen from the large percentage who read the funnies.

Instinctive factors contribute to radio's popularity.¹ One which plays a considerable rôle is the egoistic instinct. The enjoyment derived from a sketch by "dumb" comedians, especially if the ubiquitous stooge is present, is partially attributable to the listener's feelings of superiority to these individuals. Much of our appreciation of the comic is due to this same mechanism of feeling superior to the person who is the object of the joke. The egoistic tendency plays a rôle also when mention is made of individuals. Hearing one's own name read over the radio is analogous to seeing one's name in print. Some programs dedicate numbers to various people or mention those having birthdays or golden wedding anniversaries. In the earlier days an impromptu poet sang little ditties written

¹ Cf. Chapter V, as to the use of the term "instinct."

on the spur of the moment and including the names of people who sent telegrams to the station. A sponsor on one occasion changed a few notes in the theme song for the benefit of a listener who said that the high note hurt his ear.

Curiosity is another of these instinctive tendencies which plays a part in radio. The continuity of the serial program offers a series of daily climaxes. This urge is often abetted by the announcer who suggests, "Don't you wish you knew whether ——? Be sure to listen in tomorrow." Another manifestation of curiosity is in listening to police and other broadcasts which are not directed to the average listener at all. The appeal is analogous to that of eavesdropping, for many people enjoy getting information that they are not supposed to receive. Short-wave listeners tune in on the radio amateurs and overhear their personal conversation. The practice suggests the ten-party rural telephone line where some subscribers keep their ear to the receiver for hours although nobody is calling them. Still another aspect of curiosity is involved in the novel or stunt type of broadcast. Microphones are carried in airplanes, stratosphere balloons, and bathyspheres. Some listeners are still intrigued by hearing a clock strike in London, or the voices from the Antarctic, the jungle, or the rim of a volcano. One type of listener finds an outlet for his curiosity in logging new stations, especially on high frequencies.

Other instinctive tendencies play a minor rôle. Some listeners are responsive to the so-called gregarious tendency. The fact that other people are listening at the same time tends to extend one's social environment, and if he knows that a million or more people are listening simultaneously, he feels that he is part of them. In educational broadcasts from a college classroom, particularly if the microphone picks up the students' remarks as well as those of the instructor, listeners often feel that they are part of the class and derive social stimulation from the process.

Special Interest. Radio's appeal may be attributed in individual cases to some special interests. Some listeners are interested in dance music and deliberately seek an orchestra. Others like opera or educational discussions. Then there are the dog lovers, those who follow sports, those who want the news, and others whose main interest is in religious broadcasts. These differences in interests are reflected in program preferences, which will be discussed in a later section.

Comparison with Other Entertainment. In comparison with similar entertainment on the stage or the screen, the radio is more personal. The listener may feel at times that the musician is singing directly to him individually. If he considers for a moment he will realize that thousands of other people are listening simultaneously, but many times he does feel the personal touch. The radio listener, moreover, is more comfortable, informal, and relaxed. To that extent he is more susceptible to suggestion than usual, and his imagery will have freer range.

Habit. A final principle which increases the widespread use of radio is habit. Listening becomes part of the day's routine and a fundamental type of social behavior. One woman becomes so accustomed to listening to the news flashes that the day is ruined if anything interferes with that 7:30 A. M. broadcast. Another listens to operas and symphonies so consistently that she puts a sign on her door so that people will not disturb her during those programs. Other people cannot begin the day with equanimity unless they hear the cheerful early morning broadcast which is designed to wake people up and get them started. Thus radio plays an important rôle in the life of the modern individual.

MEASUREMENT IN RADIO

As the advertising psychologist approaches the radio one of his first considerations is the possibility of measuring the psychological factors involved. The advertiser, for example, is interested in problems analogous to those of magazine circulation, but the problem is more complicated. Whereas it is comparatively simple to ascertain how many homes a magazine enters, it is more difficult to determine the circulation of a radio program. The problem is further complicated by the fact that listeners often do other things simultaneously with their listening.

A result which was discovered rather early was that the strength of the signal had much to do with the tendency of the listener to tune in a particular station. Practically all surveys have shown that listening to a station of low signal strength is comparatively infrequent. The opposite is not true, however, to the extent that if the station has a loud signal most of the people in the vicinity will tune it in. When a community has a rather wide choice of service of good intensity level, other things, such as nature of the program, will determine their selection.

Before this last point was thoroughly appreciated, broadcasters were prone to take a compass, draw a circle on the map with the station at the center, and estimate the number of listeners in inverse proportion to the distance from the station. This system was soon discovered to be wrong, even from an engineering standpoint, because, when appropriate instruments were carried around to different points and measurements of field strength made, the millivolt meter revealed wide differences between locations at the same distance from the station. This led to a systematic survey of the surrounding regions, and the areas were plotted in terms of millivolts rather than miles.¹ Preference for the program or the choice of a network as compared with the local program, attitudes toward electrical transcriptions compared with "in person" presentation, and finally sheer formation of habits, all cut across the millivolts. Many of the reports of coverage are combinations of several factors. Even if it can be established that a family listens to a particular station more than to others, this does not solve the problem entirely. There is a difference between having a station tuned in and actively listening. Consequently, the advertisers and psychologists have been interested in developing techniques for measuring the listening habits rather than merely determining the strength of the signal or securing statements as to the stations preferred. A brief survey will be given of methods for studying listening habits.²

Mail Response. One of the earliest methods of studying listening behavior was to analyze communications received by mail. In much of the mail which is received in response to commercial programs there are requests for some item, usually one which was offered in the broadcast. Upwards of two million requests have been received in response to an offer of a free sample. Contest mail is another frequent variety. If the audience is requested to vote on some particular matter, numerous replies are received. Experts with a clinical or literary background have attempted to analyze such mail, and have come to the conclusion that those who respond are not typical of listeners in general, so that the sampling is inadequate. Many repeaters are found in the mail, especially where a free offer is made. Another source of error is lack of uniformity in the inducement offered to the people who are asked to write in. Informa-

¹ Seely, E. H. "Millivolts Don't Mean a Thing," *Advertising and Selling*, March 26, 1936, 26, 26 ff.

² Cf. Stanton, F. N. *A Critique of Present Methods and a New Plan for Studying Radio Listening Behavior*, pp. 5-88. Ph.D. Thesis, Ohio State University, 1935.

tion is not available as to what the listeners did during the program to which they evidently listened. Neither is there any indication as to how many people are represented by the one member of the family who writes.

Personal Contact. A formal interview makes possible a much better control of the sampling. Those who are interviewed can be selected in any fashion desired. Any ambiguities in the questions can be cleared up on the spot. The interviewer may also observe his subjects and may obtain additional information from the way in which they react. Observation may be made of other conditions in the home which will be significant. There is the danger of the interviewer's introducing a certain amount of suggestion in the way he phrases his questions or even by his mere presence. Proper training should obviate much of this difficulty. Inasmuch as the interview usually covers listening for the preceding day or some more remote period, the possibility of errors in memory is always present.

Telephone Survey. The telephone offers some possibilities of securing data regarding the radio audience. Many unsolicited calls are received by the stations. These include requests for program comments. In other cases the calls are solicited, as in the amateur program. So far as yielding data about the audience is concerned, there is little reliability attached to this method, because of those who wish to call only a small percentage can get through to the station. Better possibilities are offered by outgoing telephone calls. In the conventional type of survey, subscribers are called systematically by some organization and questioned about their radio listening on the previous day. Considerable data can be obtained rather expeditiously by this system as to station listened to, identification of program, number of listeners per set, and so forth. Problems of sampling can be handled adequately. The greatest disadvantage of the conventional survey, however, is that it depends upon the memory of the prospect. Some data to be cited later indicate considerable discrepancy between the subject's memory for his listening behavior on a previous day and his actual use of the receiver. A technique which obviates this factor of memory, but which has other shortcomings, is the coincidental telephone survey. In this method the subscriber is asked whether his radio is tuned in at that time and to what program it is tuned. Inasmuch as no memory factor is involved, fairly accurate data

can be secured as to the program to which people are listening. The inadequacy of the conventional interview may be shown by results such as the following, which was obtained in cities reached by three major networks. Coincidental calls were made during the evening and ordinary telephone interviews on the following morning. In general, the percentage of listeners reporting a program in the ordinary interview was found to be about one third of the number found listening to the program on the preceding evening.

Questionnaires afford another technique for the purpose in hand. They may include direct questions, multiple choice questions, completion items, or items in which one has to match, for example, the name of an entertainer with that of the product which sponsors him. They may be distributed through the mail as stuffers for packages or by house-to-house procedure. The chief advantages of the questionnaire are its speed, flexibility, and convenience. The main difficulties are the low percentage of returns ordinarily obtained and the question as to whether those who do reply are typical of the market as a whole.

Special Methods. Sales response may be used as a check on radio listening, if analyzed separately for a region which has radio coverage and for one which does not. A firm may announce a radio special and note how many customers ask for this special on the following day. A questionnaire study may be made of brands used in radio homes versus non-radio homes or with reference to whether the homes were within range of a station advertising the brand. Fluctuations in use of telephones or attendance at theaters during a period when certain programs are "on" may indicate audience habits. Note may be made of the behavior of the studio audience with reference to enjoyment of the program. Some attempts have been made to study home listening conditions by having one member of the family secretly record the listening behavior of other members.

Recording Devices. Two techniques which deserve special mention secure an automatic record of actual set operation. In one of these a small unit was installed with the owner's consent. It was plugged into the radio outlet and the radio plugged into the unit. Installations were made under the auspices of a research bureau for the ostensible purpose of recording current consumption. The unit was left in place for a week. The mechanism contained a small moving tape and a solenoid arrangement such that a mark was made on

the tape whenever the radio was off but was broken whenever the radio was turned on. An automatic time record was also included, so that it was possible to determine exactly when the set was in operation during the week.¹ When the recording device was removed at the end of the week, it was possible to interview some member of the household and explain that the apparatus recorded actual use of the radio, and then to question him regarding programs remembered or any other feature of interest. In some cases this technique was used to determine possible discrepancies between memory for programs of the preceding day and actual use of the radio. This device has the obvious shortcoming that it does not tell to what program the person is actually listening, but it does have the advantage that the subjects are unaware of the actual variables under investigation.

A similar technique has been devised for securing not merely a record of the times when the set was on and off but of the actual frequency to which it was tuned. This device is more complicated mechanically, and it is necessary that a service man go inside the set, because a cam arrangement must be attached to the tuning condensers in order to get the record of frequency. The procedure is that a representative secures permission in advance, and then the service man appears to install the device. Although this arrangement gives a rather complete record of what is done with the receiver, there is a possible difficulty in the fact that the listener is not entirely unaware of its purpose. It may be, however, that one soon becomes adapted to the arrangement and it does not influence his listening behavior to an appreciable extent.²

Both of these recording devices have interesting possibilities and are superior in many respects to the conventional type of survey. The amount of data obtainable depends on the number of units which are available. It may be possible to determine the percentage of the sets which are in operation at each particular hour of the day. The effect of football on Saturdays may be noted, and Sunday listening habits may be determined accurately. In the device which records the station to which the receiver is tuned it is possible to determine the comparative popularity of any of the accessible stations in the region at any hour of the day. Such devices come

¹ Stanton, F. N. *A Critique of Present Methods, etc.*, 90-100.

² Anon. "Mechanical Survey Brings Surprises," *Broadcasting*, January 15, 1936, p. 9 ff. Also *The New and Most Accurate Survey Method for Determining Listener Interest in Programs*. The Yankee Network, Inc., Boston, 1936.

much nearer to giving an accurate indication of listening behavior. They still fall short of an ideal procedure in that they merely tell that the radio is in operation and not what the members of the household are doing. It makes a vast difference whether they are playing bridge, doing the household work, studying, or relaxing and giving their full attention to the radio. No mechanical technique for getting such a complete record appears within the realm of possibility. With methods such as those just described, however, the advertiser must do what he can in the way of making scientific adjustments of his program to the factors involved on the part of the audience. Even though the methods fall short of perfection, they should go some distance in the direction of making radio advertising more effective.

TYPES OF PROGRAM

By way of introduction to the consideration of circulation of the different programs and preferences for them, it may be well to note the principal types which are current. Numerous classifications of radio programs have been made. It would seem that as adequate classifications as any are those made by the broadcasters themselves. Two such classifications will be given, showing incidentally the comparative frequency of the different types. Table 61 gives

TABLE 61. TYPES OF PROGRAM

Musical	
Popular.....	36
Light.....	8
Classical.....	8
Semi-classical.....	5
Novelty.....	3
Religious.....	1
Non-musical	
Script (dramatic, dialogue).....	13
Announcements of program content..	6
Commercial announcements.....	5
Educational.....	5
Special events.....	4
Functions.....	3
Political.....	1
Church programs.....	1
Humorous.....	1

an analysis of programs during one representative week by several stations affiliated with the Columbia Broadcasting System. They

are classed as musical and non-musical, and the figures indicate the percentage of the time devoted to the program indicated. Musical programs obviously predominated, but in this classification popular music is outstanding in frequency, with the other types in a distinctly subordinate position. Among the non-musical programs the greatest frequency is for script, such as drama, dialogue, and skits. Another classification is given in Table 62, where the items occur in

TABLE 62. TYPES OF PROGRAM

Dance.....	14	Vocal-classical
Skit.....	10	Conventions and celebration
Semi-classical.....	7	Station announcements, weather, time
Vocal-popular.....	7	Talks on national policies
Sports.....	6	Symphonies
Advertisements.....	5	Old Songs
News.....	5	Spirituals
Education (formal)		Business, stocks
Organ		Fashion
Variety-popular		Variety — semi-classical
Drama		Detective
Children's		Band concert
Recordings		Safety talk
Recipes		Short stories and travel
Religious services		Political speeches
Mountain or Barn music		Brain teasers

order of magnitude of the time devoted to them during a period of a month on a typical National Broadcasting Company station. Dance orchestras are at the top, followed by skits. Except for the figures given in the table, all the other programs occurred with frequencies of less than 5 per cent. The last nine in the second column occurred less than 1 per cent of the time.² These tables are sufficient to indicate possible classifications of programs. Interest at the present moment is not in the frequency, so that the figures are given only incidentally. If that problem were under investigation, it would be found that the frequency of different types of program varied from day to day. More classical music, for example, is found on Sunday than on other days of the week.

RADIO CIRCULATION

The sponsor is interested in the circulation of his program just as he would be in the circulation of a magazine which carried his advertising. Although it is difficult to determine just how many

² Cantril and Allport. *The Psychology of Radio*, p. 74.

radio sets are tuned to a station at a given time, it is impossible to ascertain what degree of attention the listeners pay to the program or what their co-listening activities are. It is known, for example, that the average radio is turned on between 3.5 and 3.75 hours per day, but this finding does not help the individual advertiser greatly in his particular problem. A more important question is the type of program to which persons will listen most frequently. In most cases they listen because they like the program, although in some instances it may be purely a matter of habit. Surveys have been conducted in which people are asked to list their preferences, or contests are held in which people vote on the popularity of programs. Surveys by questionnaires, interviews, telephones, and even the installation of recording devices were mentioned above. Some of these techniques have sampling errors and some are subject to lapses of memory of the people interviewed. In a typical study many persons were asked to indicate on a comprehensive list the types of program which they preferred. Old song favorites ranked at the top, followed by dance orchestras, then news events, symphony orchestras, football, drama, humorous, and other sports.¹ On the other hand, a study in which was employed an automatic recording device inside the receiver brought out the fact that the program to which the largest percentage of the receivers were tuned was an amateur program, and second place was held by a variety skit with a comedian and his stooge. Caution should be observed in interpreting such results with reference to the general type of program. One comedian, for example, may have a large following, whereas another one with a very similar type of performance may not attract nearly so many listeners.

A study of individual differences between listeners is of interest in this connection, just as it was in connection with printed copy. Sex differences are pronounced in radio preferences. In the questionnaire study mentioned above the outstanding male radio preference is football and sports, while women rank football halfway down in a list of forty types of programs. Women, on the whole, pick symphonies for their first choice. Both sexes like old songs. These results, however, are cut across by age differences. The younger people (under thirty) of both sexes rank dance orchestras highly, although the younger men put sports and football ahead of dance orchestras. Both young and old rank the old songs highly,

¹ Cantril and Allport. *The Psychology of Radio*, p. 93.

but such songs head the list for listeners over thirty and take second place for those under thirty. Some differences correlated with occupational status have also been found. Professional people give a high rating to news and classical music, while the laboring groups prefer popular music and news and have a more definite distaste for classical music. Simple music and homely drama are more popular in rural districts than in cities, and old-fashioned melodies, religious services, news reports, and women's programs are more popular in small towns than in the larger cities.¹

Other Factors Affecting Circulation. The above tendencies in radio preferences were based on program content, but other factors may influence circulation. One of these is the time of day. Questionnaires as to when people like to listen indicate preference for the early evening hours. Similar results are found when analyzing the percentage of the station time which is sold at different hours of the day. The largest per cent is between 9 and 10 P.M. followed closely by the 7 to 8 P.M. hour, with the 8 to 9 P.M. period not far behind. These results are borne out in a general way by studies with recording devices which show that more sets actually are turned on during the evening hours. The usual explanation for this result is that more people are home during the evening and are relaxing and seeking entertainment. This type of data reflects the tendency for the audience as a whole. If one is interested in reaching the domestic market, however, it is well to remember that numerous sets are in operation during the morning hours and are listened to by housewives. The farmers often relax at noon and can be reached through the radio at that period. As mentioned earlier, the signal strength of the station has much to do with determining the audience, at least in a negative way. The average listener devotes practically all of his time to not more than three stations which are readily accessible and have adequate signal strength. When these listening habits are firmly established it is difficult to induce a person to listen to other stations outside his favored group. One advantage of a network arrangement is that the national programs can be brought to stations which are easily accessible in numerous localities. In this connection it has been found in some surveys that almost 90 per cent of the listeners prefer network programs. Whether this is due to the quality of the programs or to mere habit cannot be determined.

¹ Hettinger, H. S. *A Decade of Radio Advertising*, p. 57. University of Chicago Press, 1933.

ATTENTION TO THE RADIO PROGRAM

The fact that the receiver is operating does not mean that persons are listening to it, any more than the placing of a magazine in the home ensures that a particular advertisement is read. It will be well to glance at radio from the standpoint of whether the prospect pays attention, in the first place, to the program and, secondly, to the advertising announcement which is included. The problem is not one of catching the initial attention, because other factors determine whether he tunes in a station. Among such factors are publicity in other media, program announcements, suggestion from friends, and even habit. The important problem in the present connection is that of keeping the attention on the program. Available data indicate that many persons do other things besides listen while the program is in progress. The only feasible approach to this question is to ask people about their listening behavior. In one questionnaire, about two thirds of the subjects stated that they engaged in some other activity while listening to music on the radio, and for persons below thirty this proportion rose to about three fourths. Only a third of them stated, however, that they engaged in other activities while listening to talks on the radio.¹ Another questionnaire which was not broken down according to age or type of program yielded reports of "co-listening activities" for a third of the subjects.² The greater tendency to engage in other activities for the musical program as contrasted with the talking program is of practical interest. The implications of this result for attention to the advertising announcement will be pointed out presently. It indicates the importance in the present discussion of attempting to construct the program so that it will maintain interest and attention.

A cue may be taken from the discussion of printed advertising with reference to devices for holding attention. Just as a layout is planned to possess an inherent unity and make it difficult for the reader to break away, so a radio program may be constructed in a similar manner. If the listeners are taking an imaginary trip they may be carried logically from one place to the next by the use of music or episodes appropriate to those places, so that they hesitate to drop out before returning to the starting point. A musical program devoted to a certain era, such as the Gilbert and Sullivan

¹ Cantril and Allport. *The Psychology of Radio*, p. 100.

² Stanton. *A Critique of Present Methods, etc.*, p. 177.

period, will hold together better than one which ranges from Bach to Gershwin.

Arranging the program so that it will be pleasant and attractive may contribute to holding attention, just as esthetic factors in the printed advertisement are used for this purpose. It is possible to make the program intimate and personal so that the listener will not regard it so much as background for his "co-listening" activities. The fan mail received by some such performers testifies to the fact that they do achieve this seeming intimacy. The girl in question listens to the program attentively, and incidentally may get some vicarious fulfillment of her unattainable desires. The length of the program has some bearing on attention, although the relation is not clear. Some programs of an hour's length have a large following, whereas other successful ones last only fifteen minutes. A dance orchestra presumably could perform for a longer period than would be feasible for an educational talk. Some fatigue of the attention might develop in the latter instance.

The amount of attention devoted to the program may vary with the time of the day. As pointed out earlier, many listeners are relaxing in the evening. A common practice is to don more comfortable clothing and sit in an easy chair. This relaxation tends to minimize more distracting activities, so that the listeners will give better attention to the program. The absence of the visual stimulation makes the problem of maintaining the attention all the more acute. The listener has to create his own pictures, and in that respect may be aided by the showmanship of the program. Sound effects, if judiciously used, facilitate the listener's own imagery and may create an interest which will help maintain attention to the program.

ATTENTION TO ADVERTISING

If a person is listening to a program there is naturally a greater chance of his hearing the advertising, but it is well to give some consideration to further problems of attention to the announcement. The fact must be faced that advertising is unpopular. In typical surveys 93 per cent of the listeners wish there was less advertising and 82 per cent are sometimes actually annoyed by advertisements. This fact raises problems of good will. If something about the announcement irritates the prospect, it may create a

hostile attitude toward the product and do more harm than good. Strictly speaking, there is no logical reason for the advertising in the program at all except that the sponsor is paying the bill. The average listener may fail to appreciate the fact that without this feature the quality of programs which he might receive would be inferior to the present sponsored type. The advertiser, nevertheless, does have a problem of getting his announcement to the attention of the listener without irritating him and creating ill will.

The point has already been made that musical programs secure a lower degree of attention than dramatic programs or those involving conversation. It is probable that the attention value of the advertising announcement after such programs will vary accordingly. If one is listening to a talk at a high level of attention and it is followed immediately by other words describing the product, attention should carry over to the announcement. On the other hand, if the person is listening to music, in the margin of his attention the following announcement will likewise be in the background, and may even come as an intrusion to his attitude of listening to the music.

Appropriateness. Attention to the advertisement also depends on its appropriateness to the program. When discussing pictures note was made of the inadvisability of irrelevant pictures which do not fit in with the product. Somewhat the same principle holds with reference to attention to the advertising on the radio when it is unrelated to the program and when the product itself is completely inappropriate. A sudden change from an operatic aria to a statement about hygiene comes as a shock, and may have an unfavorable effect because of conflicting attitudes. The problem is somewhat analogous to that raised earlier in connection with the flats and standards in magazine advertising. It will be recalled that some doubt was raised as to the effectiveness of an advertisement adjacent to the continuation of a story which is totally unrelated to the product advertised. The reader is concerned with finishing the story and the adjacent advertisement comes as an intrusion. This same difficulty is inevitable in many radio situations. It is almost impossible always to have the product advertised logically connected with the sponsored program. Some advertisers, fortunately, have so-called "naturals," such as a piano manufacturer broadcasting piano music. It is a very easy transition from the performance of the artist to comments about the tone of the piano. A magazine

occasionally puts on a broadcast which essentially dramatizes stories from the forthcoming issues. A vocal artist provides a natural medium for discussing the tone quality of radio receivers which are being advertised. The listeners are already sensitive to the tone in the broadcast and are thus interested in that property of the receiver. A banking organization presented dramatic sketches such as that in which a man on some far-away adventure inherited money and then the bank tried to find him in order to settle the estate, thus emphasizing the importance of banking privileges. Conflicts occur, moreover, between an opening announcement and the preceding program. If some inconsequential chatter has just concluded and the announcer comes in with a statement about some weighty matter, such as investments or buying an expensive article, the carry-over from the previous broadcast may make it difficult for the listener to adjust himself immediately to these statements.

Type of Announcement. The advertiser is always confronted with the problem of what type of announcement he should make. In the early days of commercial broadcasting, the conventional practice was a mere courtesy announcement, "This program comes to you by the courtesy of so and so." This was given at the beginning and the end and possibly during the middle of the program, was not particularly obtrusive, and the listener took it as a matter of course. As time went on and the advertisers became more conscious of the price that they were paying for the broadcast, they began to feel that they ought to get more for their money in the sense that they should be allowed to say more about the product. Consequently, there has been a movement in the direction of a fairly extensive sales talk. The result is the general feeling mentioned above that too much advertising is done on the radio. It is a question of just how far one can go in this direction without antagonizing the listeners. No data are available to answer this particular question. It is possible that the listeners become adapted to the lengthy sales talk so that their statements that they are annoyed by it are actually rationalizations. They merely believe that they ought to be annoyed by it. Some of them throw the switch on and off at the appropriate time, although many persons leave the radio on for hours at a stretch and take whatever comes.

Length of Announcement. A related problem is the actual temporal length of the announcement. Here again it is a matter of the

listeners' desires in contrast to the advertiser's wishes. The practice varies from a very brief courtesy announcement to sales talks that run over ten per cent of the time of the entire broadcast. The problem is analogous to that of advertising space, for example a full-page versus a half-page advertisement. The difference lies in the fact that the listener has no temporal control over the situation. When looking at a printed advertisement he can turn the page or glance at one portion of it as he wishes. With the radio he has to listen, so that the problem of antagonizing the listener becomes more acute. The effect of the length of the announcement probably varies with different individuals. If the product which is advertised fits in somewhat with their interests at the time, they will accept a longer sales talk than if it does not. Women listening to domestic programs in the morning would tolerate a longer discussion of household appliances or food products than during a dance orchestra in the evening.

Place of Announcement. Announcements are normally given at the beginning or end of the program, and to varying degrees during it. The habit of switching off immediately at the end of the program without listening to the announcement has already been mentioned. Interrupting a talking program such as a news broadcast by an announcement comes as more of a shock than an interruption of a musical program at a logical break, and runs greater chances of creating ill will. During a closing announcement the music may be faded out, and it is possible that many persons continue to listen to the music and thus hear the announcement on that background. Efforts to introduce the advertising as part of the actual continuity are commendable from the psychological standpoint. When it comes in as a humorous remark, or a song about the product, the listener does not resent it. In fact, he may admire the cleverness with which the announcement is introduced, just as one occasionally appreciates a joke on himself. In such a device the listener gets the announcement while his attention is at a high level and he is not antagonized. It cannot be predicted whether or not the continued use of this device will ultimately become annoying.

MEMORY AND ASSOCIATION

Mention should be made of a problem in the field of memory which is unique in the problem of advertising by radio. This

problem has to do with the association of the product with the program. On many occasions when one is not listening to the radio, he may think of a particular program or even converse about it with other people. If an association has been built up between the program and the product, such occasions will cause the person to think of the product and in that way serve as a reminder. A familiar theme song if heard in other contexts will bring to mind the corresponding product. A news commentator or an entertainer may be encountered in numerous settings and still remind one of the radio advertisement. This type of association will normally be built up by the process of repetition. It may be possible to strengthen the association somewhat by naming the person and the product together occasionally in the course of the continuity.

Some minor problems of memory connected with radio have been studied experimentally by reading passages through an amplifier and requiring the subject to report upon the effectiveness of the passages and their interest, as well as to take a brief memory test on the content. It was found that short sentences were especially advantageous for material which had no intrinsic interest and was distinctly factual in nature. With the more interesting material the advantage of the short sentence disappeared.¹ Other studies have revealed that the rate of speech has a bearing on memory, and that factual material is better remembered when broadcast slowly.

Another principle which may be utilized in the interest of memory is the habits that the listener may develop in respect to time. If he can be induced to listen regularly at a certain hour on a few occasions, the practice becomes habitual, so that he gets the desired repetition of the advertising announcement for a particular product.

PSYCHOLOGY OF THE ARTIST AND ENTERTAINER

Musical. The artist presents no particular psychological problem from the standpoint of broadcasting. When playing an instrument while seated the position is obviously constant, and when standing it is merely necessary to instruct the performer to avoid too much moving around. The engineer can take care of the remaining technical details. Comedians and other entertainers may have more difficulty in staying in one spot, particularly if they have been ac-

¹ Cantril and Allport. *The Psychology of Radio*, p. 190.

customed to performing before an audience on a stage with various properties.

Actor. More serious problems arise in connection with the entertainer who depends not on a musical performance but rather on acting. Many performances which are very well received on the stage cannot be adapted to radio because of the large part played by the visual experience, such as pantomime or gestures. Experienced actors often find it difficult to adapt themselves to broadcasting situations. One noted comedian at his first appearance before the microphone went into a routine pantomime that was excruciatingly funny for those in the studio, and it was some thirty seconds before they realized that the microphone had been dead while he was searching frantically through his pockets.

Studio Audience. A procedure which is used to offset some of the difficulties inherent in adjusting oneself to the radio situation is to have an audience in the studio. This group stimulates the entertainer much as does a theater audience, and he does not feel the extreme isolation which sometimes confronts one before a microphone. Lecturers, academic or otherwise, have sometimes been utterly confounded by the absence of faces before them when they make their first broadcast. With the studio audience the entertainer can adapt himself somewhat to their behavior. If a statement amuses them he can follow it up and can pause for a laugh or for applause. It is probable that the mental state of the listeners outside will synchronize with that of the group in the studio. Some radio entertainers even change their costumes for different parts of their performance in the studio.

Humor. The absence of the visual effect is an especially significant variable with reference to the humorous presentation. Experiments in which lectures were given to a class in person and through a speech amplifier brought out the fact that humorous portions of the lecture were much more poorly received through the amplifier. It has been found, however, that even a loud-speaker arrangement is preferable to seeing the humor in print. Laughter apparently needs a social echo.¹ The audience in the studio naturally contributes somewhat to the humor of the situation, because the listeners hear them laugh and imitation leads the listeners to do likewise. In selecting humor for radio presentation, it may be desirable to use a simpler type because of the possibly lower level of the audience com-

¹ Cantril and Allport. *The Psychology of Radio*, p. 221; also p. 236 (*supra*).

pared with the reader of the average magazine. The listener, furthermore, has no time to think over the joke if it does not penetrate at the outset, whereas in a publication he can read it twice if necessary. It was found in one brief analysis that 40 per cent of the humorous remarks in radio continuities dealt with simple plays on words. A person needs little insight in order to appreciate the humorous aspect of a pun.

PSYCHOLOGY OF THE ANNOUNCER

Voice and Personality. The psychological aspect of the announcer which is most discussed is subsumed under the term "personality." Listeners, when interviewed, concede in nine tenths of the cases that they have often wondered about the personality behind the voice. This was found to be more true in the case of women listeners than of men. The dislike for women announcers is almost universal, and must be due somewhat to the personality of the individual as it is portrayed by the voice. Everyday judgments of the personality from the voice are, however, difficult. Many an individual has listened to some speaker or vocal artist with only a mild degree of interest, and then has been much surprised when informed that it was some famous person. The mere voice had not been sufficient to connote an outstanding personality. Some experiments were conducted to determine what aspects of personality could be most reliably judged from the voice which came out of the loud-speaker.¹ Different speakers presented material through a public address system and were estimated by the listeners as to various physical features and also certain traits such as extroversion-introversion or ascendance-submission. The subjects were called upon to match three different speakers with three characteristics at a time, so that chance would account for one third correct judgments. In almost half of the cases the proportion of correct judgments differed from chance expectation to a statistically significant degree. However, there was no outstanding characteristic which was always judged correctly, although extroversion and introversion were clearly revealed by the voice in many instances. On the whole, judgments were more consistent with reference to personality traits than specific physical traits, such as stature. The upshot of the experiment is that voice does convey personality to a

¹ Cantril and Allport. *The Psychology of Radio*, pp. 112 ff.

certain degree, and hence nothing would be lost by selecting an announcer who possessed the desired traits. There is some possibility that with many of the listeners those traits would be adequately transmitted by the voice.

Attitude of the Announcer. In the organization of the script it is important to remember that the announcer is somewhat like an uninvited guest in the home and must observe the usual amenities. It is inadvisable to give orders to the listeners. Direct suggestion is even more objectionable in a verbal statement than on a printed page (cf. p. 53). Neither should the audience be embarrassed by discussion of matters which are unduly intimate. The announcement comes essentially as an interruption to the rest of the program and should, if possible, be handled as gracefully as any other interruption.

The background of the announcer who is to give the message about the product is more important than it might seem.² In many cases a staff announcer is assigned to the commercial concern. He may be embarrassed by the necessity of extolling the soap or facial cream and would be much happier introducing the *Moonlight Sonata*. He does not feel any more like a salesman than would a regular salesman who was reading a copy of the advertisement over a transom to a prospect in the next room. Suggestions have been made that it might be advisable to obtain announcers who had already sold the product themselves. After years of experience in dramatizing a tube of shaving cream or injecting romance into plumbing fixtures, an advertising man or salesman might present some such lowly product to the radio audience with daring and imagination. It is also advisable to have the voice of the announcer appropriate to the product. If medical approval is featured, the commentator might well have a dignified voice like that becoming a physician.

Transcriptions. The use of electrical transcriptions is not received with entire satisfaction by the audience, although in most cases they would be unable to tell by listening whether or not it was a transcription. The result is probably due to different imagery involved in the two cases. In one instance the listener imagines the entertainer or the announcer; in the other he merely imagines the disk rotating on the machine. The latter experience is less satisfying.

² Brokenshire, N. "A Radio Announcer Looks at Sales Talks," *Advertising and Selling*, August 18, 1932, 19, p. 24.

PSYCHOLOGICAL PROBLEMS IN PRODUCTION

Radio depends considerably upon the imagery created by the program; in the interest of which much effort is devoted to showmanship or the machinery of illusion. Utter realism is not necessary in a work of art, so that the subject may supply much from his own imagination. But it may be desirable, on occasion, to facilitate the arousal of imagery by employing sound effects. If one hears a rumble resembling an airplane and the context suggests that an airplane is due, it is easy for him to imagine the plane almost as vividly as if he had a picture of it. Another psychological feature in radio production, particularly in the drama, is that no time is lost in changing scenery and it is possible to transcend time and space much more readily. The adaptation of drama to radio is beyond the scope of the present discussion; suffice it to say that ordinary plays, because of temporal limitations, seldom fit the radio without revision. The radio moves along more rapidly on the whole, and with the ordinary arrangement of programs it is necessary to condense the entire drama into brief limits. Where the audience does not see the characters and has to distinguish them by their voices alone, it is confusing if too many of them are present, so that it is necessary to keep the number of characters within the range of easy recognition.

AURAL VERSUS VISUAL PRESENTATION

A mooted question among advertisers since the advent of radio is the effectiveness of this medium in comparison with those relying on visual perception. Much *a priori* discussion has been devoted to this question of the eye versus the ear. It is pointed out, for example, that the spoken word is more convincing, and that a psychotherapist would not attempt to hypnotize a patient by presenting him with printed material. Attention is called, on the other hand, to the difficulty of giving an adequate impression of a streamlined car by a mere verbal description.

In a problem of this nature it is sensible to survey the scientific literature on the chance that studies already performed may throw some light on the present problem. Such a survey in the present case does not lead to very conclusive results.¹ Many of the experi-

¹ Carver, M. E. *A Comparison of the Mental Aspects of Visual and Auditory Presentation*, Chap. I. Ph.D. thesis, Harvard University, 1934. Also Columbia Broadcasting System, *Exact Measurement of the Spoken Word*. New York, 1936.

ments reviewed have dealt with children. The gross results indicate that it is well to have auditory presentation about half the time and visual the other half, although the techniques varied widely in the different experiments. Differences apparently are produced by age, as when the younger subjects with certain types of material do better in the auditory and the older ones in the visual method. There are indications that the effectiveness depends upon whether the presentation is of the same mode as the natural imagery type of the individual. With adults the results are more contradictory. A possible trend is a superiority of the visual for disconnected material and the auditory for connected material, but the differences are slight.

In practically all the experiments just mentioned, the auditory presentation was given by a speaker who stood before the subject. This arrangement is obviously different from the radio situation, so that conclusions should be drawn cautiously with regard to radio. A few experiments, however, have been conducted more specifically upon the radio problem, using a public address or similar system for the auditory aspect and comparing it with the visual. An almost insurmountable difficulty in such experiments, however, is the time variable. The rate of presentation in the public address system can be controlled by the speaker. The only way to control the rate of reading of the printed page is to give an outside time limit, and even then the subject may not finish or may read it twice, according to his normal speed of reading. Moreover, controlling speed of reading does not necessarily control comprehension. Only by exhaustive experiments in which the time relations were so reversed that each mode of presentation had a very obvious time advantage and the results were averaged would it be possible to give an adequate answer to the problem. A few experiments, however, will be discussed for what they are worth.

In the most comprehensive experiment of this nature, fictitious trade names were employed.¹ Effort was made in a preliminary series to secure equal trade-name-commodity associations by reading each name and asking the subjects to indicate the commodity which they thought it might suggest. In another preliminary series the fictitious trade names and the corresponding commodities were presented without any advertising copy, and the association between the members of each pair was measured in conventional fashion. In this way were selected two series of eight names each that were of

¹ Stanton, F. N., "Memory for Advertising Copy Presented Visually vs. Orally," *Journal of Applied Psychology*, 1934, 18, 45-64.

about equal difficulty. These series are designated X and Y. Some subjects received X visually and Y orally and other subjects just the reverse. In some cases X was given first and in other cases Y preceded. The copy was 70 to 75 words in length, and the trade name and commodity were mentioned three times in the copy. For visual presentation, booklets were used, and for auditory presentation a public address system with the speaker in a separate room. The subjects turned the pages of the booklet at a signal, being allowed one minute per page. The auditory copy was given at approximately the same rate. Three types of results were secured: a pure recall in which the subject listed all the products and trade names he could remember, an aided recall in which he was given a list of products and required to write in the trade names, and finally, a recognition test in which he was given a product and four alternative trade names from which he had to select the one which had been presented in the booklet or through the amplifier.

The results were secured in such a manner as to average out other variables, such as difficulty of copy, practice and initial interest. Various breakdowns could be made with reference to these variables, but the most crucial comparisons are for the same subjects taking a visual and an auditory series. These four comparisons, namely, auditory X followed by visual Y, auditory Y followed by visual X, visual X followed by auditory Y and visual Y followed by auditory X, may be combined into an average which irons out the other variables about as well as can be done in this type of experiment. Recall and recognition tests as described above were given immediately after the presentation, also a week later, and finally, three weeks later.

TABLE 63. MEMORY FOR VISUAL AND AUDITORY ADVERTISING *

	Immediate			7 Days			21 Days		
	Audi- tory	Vis- ual	Diff. σ	Audi- tory	Vis- ual	Diff. σ	Audi- tory	Vis- ual	Diff. σ
Recall.....	3.6	2.7	3.1	3.8	1.7	12.8	1.5	.8	4.3
Aided recall.....	3.8	3.1	2.2	3.9	2.1	10.7	1.6	1.0	4.0
Recognition.....	6.8	6.6	.8	6.6	6.1	2.0	5.5	4.8	2.5

* Stanton.

The results obtained by grouping together these four types of data are presented in Table 63. The first row gives data for recall, the

second for aided recall, and the third for recognition. The main entries under the column headed "auditory" or "visual" give the average number of items correctly recalled out of the eight possible advertisements. In each block of the table, "auditory" appears in the first column, "visual" in the second, and in the third, the critical ratio; that is, the difference between the two averages divided by the standard deviation of the difference. In recall the immediate difference and those after seven days and after twenty-one days are significantly in favor of the auditory presentation. The same holds true for aided recall after seven and twenty-one days. The difference for immediate recognition is not statistically significant, but that after three weeks is possibly a real difference. The trend is uniformly in favor of the auditory presentation. The greatest difference between auditory and visual is for the recall at the seven-day period.

Every precaution was taken to control extraneous variables in the experiment. It is possible that the auditory results were enhanced somewhat by the unusual presence of the loud-speaker. On the other hand, the visual copy was read more systematically than is ordinarily the case with advertising. Presumably both media were operating at a higher level than they do under everyday conditions. The visual lacked illustrations and the auditory lacked a contiguous musical program.

In another experiment somewhat similar material and methods of presentation were employed, and scores were obtained for recall immediately, after one day and after five days.¹

All the differences between "visual" and "auditory" that were statistically significant favored the auditory presentation. Such differences were found mainly for the recall after five days.

Other experiments which were aimed at this same problem did not employ advertising copy or trade names, but such material as nonsense syllables, disconnected words, sentences, or short passages.² With the exception of the nonsense syllables and the more difficult passages, the results favored auditory presentation, although many of the differences were small and of doubtful significance. These experiments should perhaps receive less weight than those described above in which a closer approach was made to the actual advertising situation.

¹ Dewick, H. N. "The Relative Effectiveness of Visual and Auditory Presentation of Advertising Material," *Journal of Applied Psychology*, 1935, 19, 245-264.

² Carver, M. E. "Listening versus Reading"; in Cantril and Allport, *The Psychology of Radio*, chap. ix.

A categorical answer as to the value of radio as an advertising medium in comparison with magazines or newspapers is obviously impossible. Experimental control of all the variables is very difficult. Within these limitations the aural presentation makes a somewhat more favorable showing in the results, especially when memory is measured after an interval of a few days. Certainly nothing is revealed in these studies that is unfavorable to radio as an advertising medium.

SUMMARY

Radio's appeal may be traceable to objective and subjective factors. The former include accessibility, convenience, the possibility of leaving at will, the variety available, and the fact that the program is free. Among the subjective factors are distraction of the listener's attention from his own ennui and the pleasant imagery often aroused. The listener's feeling of superiority to the dumb comedians, the mention of his own name in special broadcasts, and the curiosity aroused by a serial program are among the instinctive factors producing radio's appeal. The listener can be comfortable and relaxed, and often feels that the artist is performing for him personally. A final point is that listening often becomes habitual, so that the prospect can be counted on day after day to listen to certain programs.

Measurement of the listening audience is complicated psychologically by the fact that people engage in co-listening activities which make a vast difference in the degree of attention paid to the program and the commercial announcement. Mail response yields considerable information but contains a sampling error, as those who write may not be typical of listeners in general. Personal interviews can control the sampling but may reflect suggestion and lapses in memory. Telephone surveys likewise can control the sampling but encounter difficulties with memory. The coincidental telephone survey avoids this latter source of error. Questionnaires are inexpensive but yield a low percentage of returns, and these may be atypical. Sales responses may be analyzed to show the effect of a program. Most interest attaches scientifically to recording devices which register actual set operation. One of these was installed on another pretext so that the subjects were unaware of its purpose, but the device merely indicated when the set was in operation. A more

complicated arrangement, which necessitated permission for the service man to go inside the set, recorded the actual frequencies to which the receiver was tuned, but the subjects were aware of this fact.

Studies of program preferences with a view to indicating circulation encounter differences due to sex, age, occupational status, and rural versus urban domicile. Inconsistencies are sometimes found between expressed preferences and actual program popularity as indicated by recording devices. The audience also varies with the time of day, both quantitatively and qualitatively.

The degree of attention devoted to the program is an important consideration because it paves the way for attention to the commercial announcement. Co-listening activities are more numerous during musical programs than during talking programs. Unity in the construction of the program, its pleasantness, and the personal touch of the artist who sings or talks intimately, all tend to keep the attention of the audience. The absence of visual stimulation makes it important to facilitate the listener's imagery and thus his interest.

If the musical program is perceived somewhat in the margin of the attention it is probable that the commercial announcement following will likewise be in the margin, whereas a more favorable situation exists with the program in which the listener's attention has been gained by listening to talking. The announcement may be inappropriate to the product and come as an actual intrusion so that it arouses ill will. Some sponsors have "naturals" in which program and product have some aspect in common. The present trend is to give an extensive sales talk, rather than a mere courtesy announcement, which makes the length of the announcement an important consideration. The reader of the magazine can skip the details in the advertisement if he wishes, but on the radio he must wait.

The musical artist experiences little difficulty in adjusting himself to the broadcasting situation, but it is often different for the actor who has been dependent upon pantomime, gestures, or facial expression on the stage. A studio audience sometimes helps by enabling him to adapt his tempo to them and hence to the outside audience. Humor presents the difficulty that it needs social facilitation for its fullest realization. Simpler types of humor are preferable on the radio because the audience does not have a chance to consider the difficult jokes twice.

The psychological justification of showmanship lies primarily in

its arousal of imagery. Radio drama presents different problems from the usual type because of temporal limitations, the absence of intermissions, and the confusion of distinguishing numerous characters simultaneously by their voices alone.

A difficult question to settle is the comparative value of advertising presented through the ear and through the eye. Data on this point have been obtained incidentally in numerous experiments, but the results are not decisive in either direction. In experiments aimed directly at this problem, all the statistically significant differences favored the auditory presentation. All possible variables were controlled, but the results cannot be taken as final. At least it is a safe interpretation that radio is not distinctly inferior to printed media.

CHAPTER XXII

OTHER ADVERTISING MEDIA

A BRIEFER consideration will now be given to other advertising media and their psychological aspects. Many of these aspects have been touched upon earlier in the text, so that a passing mention will suffice, but a few additional features may be noted. Media may be subdivided into direct and indirect. In the former the advertisement goes directly to the prospect, whereas in the latter the prospect goes to the advertisement. Typical of the former are newspapers, magazines, direct mail, samples, specialties, phonograph records, telegrams, and telephone calls. Among the indirect media are moving pictures, car cards, theaters, window displays, whispering campaigns, outdoor advertising, packaging, and counter display. These media will be discussed in the above order. The numerous economic problems connected with the various media will not be considered, but attention will be directed primarily to psychological factors, such as the attitudes and feelings of the prospect as related to the medium.

NEWSPAPERS

Hasty Reading. An outstanding psychological consideration in newspaper advertising is the attitude of the reader. The advertisement is, so to speak, in helter-skelter surroundings, with a great variety of competing material. Most persons have developed a habit of reading this material hastily, scanning the headings, reading a few words here and there in the text, and turning the pages rapidly. This habit carries over to the advertising material, so that it is necessary to catch the reader "on the jump" in contrast with other media which he peruses more leisurely. Along with this hasty reading habit, however, goes a tendency to react to the advertisement promptly if one reacts at all. A sale which begins on the same day the advertisement appears helps fix the habit of buying promptly. Indirect evidence of this tendency is shown in the experience of an advertiser of fuel who invited the readers to write in for a booklet or to telephone the local distributor whose number was

given. Four times as many calls as written requests were received. The telephone is an easy method of carrying out a suggestion, and in the present instance it also reflected the tendency to react promptly.²

Flexibility. An outstanding advantage of newspaper advertising is its timeliness and its flexibility. It may be adjusted to the temporary attitudes or interests of the readers. Whereas a magazine campaign must be set up months in advance, newspaper copy can be changed overnight. There have been notable instances in which a sudden change of copy proved very profitable. For example, after a bad fire, a New Jersey firm which handled fire extinguishers sensed the opportunity, secured all the extinguishers that were available in the surrounding territory, and ran appropriate scare copy the next day. They sold the entire supply of extinguishers because everybody's attention was set for fire prevention, and they were thus open to suggestion regarding fire extinguishers. In another case, owing to a drought, the oranges were smaller than usual. This fact was discovered just before a newspaper campaign throughout the country was to be launched. The copy was to show people eating oranges with a spoon, but now the appeal was focused on getting the juice and on the bargains that were available in the "small delicious sizes." Had the original copy gone through it is probable that the growers would have sustained a heavy loss because the market would have been confined mainly to the larger oranges, and the smaller ones would have been ignored. Another instance is the adjustment of advertising to the weather. A manufacturer of an anti-freeze solution prepares copy for the newspapers and authorizes them to release the advertising after a study of the local temperature reports. One release is made at each official freezing temperature. Most car owners procrastinate and give little thought to the possibility of freezing up until their ears feel cold or they see a radiator boiling. Advertising at such a time is compatible with their interest of the moment. Advertisements of an insecticide are released in the spring after the temperature has been above sixty-five degrees for seven consecutive days. A preparation for cold prevention begins its campaign two weeks after the first frost. In these instances the weather, by a normal process of association, reminds a person of things which should be done at that time, so that his attention is ready for the advertisements of the commodities which are pertinent at that particular juncture.

² Thompson, W. A. *Making Millions Read and Buy*, p. 12. New York, Drey, 1934.

Art Work. Mention was made earlier (p. 289) of the desirability of making the advertisement as pleasing as possible from the artistic standpoint. When a situation arouses pleasant feelings the observer tends to prolong it, so that it secures a greater degree of attention. In the use of good art work for this purpose newspapers are handicapped because of the paper on which they are printed. This coarse paper militates against attractive reproduction of half-tones. In this process the picture is photographed through a fine screen and, after appropriate technical treatment, yields a metal plate with the picture in the form of small dots. These dots can be printed without running together, and if not too widely separated create an illusion of a continuous picture similar to the original photograph. The frequency of the dots depends on the size of the screen which was used in making the half-tone, and this in turn is limited by the paper stock. On news print the dots must be more widely separated to prevent the ink from running, which makes it more difficult for the observer to blend these dots together and secure a pleasing effect. It may be possible by skillful art work in handling the contrasts, and by combination processes analogous to retouching, to get a satisfactory effect in the newspaper half-tone, but in comparison with the magazine the newspaper is artistically handicapped.

Reader Interest. Some practical interest is attached to investigations of what portions of the newspaper are actually read. An early survey of expressed preferences indicated that the newspaper was selected because of the news rather than the features. The result, however, may have reflected the tendency to rationalize and give a plausible answer rather than reveal one's real motives. A more disarming approach (p. 23) is to have an interviewer go through a copy of the paper with the interviewee and mark the things which the latter recognizes as having read in the issue of the preceding day. This technique was used with fourteen metropolitan newspapers ranging from coast to coast and including some forty thousand interviews.¹ The page devoted entirely to news pictures is read by practically everyone, including both sexes. The individual's favorite comic is read by 65 to 70 per cent, whereas the banner story on the first page is read by only about 45 per cent of the men and 30 per cent of the women. The editorials attract between 40 and 50 per cent of the readers, and the love stories reach about 45 per cent of the

¹ Gallup, G. "What do Newspaper Readers Read?" *Advertising and Selling*, March 31, 1932, 18, 22 ff.

women but very few of the men. A result of interest to the advertiser is that 55 per cent of the women read the advertisement of the leading department store, with about 10 per cent of the men doing likewise. Amusement advertisements are appreciably inferior so far as the women are concerned, but are better than the department store for the men. Want advertisements pull about 25 per cent of both sexes. Some features, such as sports and fiction, vary considerably from city to city in their interest. Bridge, bonds, and syndicated comics, on the other hand, hold rather consistently from one city to another. Women on the average are found to be less interested in news than men, particularly national and foreign news. On the other hand, news about accidents, deaths, personalities, and crime arouses considerable feminine interest. The interviewers were impressed by the fact that the majority of the readers suggested apologetically that they had been rather hasty in looking through the paper — an observation which substantiates the previous point regarding hasty reading habits.

Another investigation of newspaper reading habits¹ consisted of watching people in street cars, subways, and elevated trains, and recording for each one whether he was reading the paper and also whether he was reading advertisements. Observations were classified according to the time of day, sex, and whether the individual was standing or sitting. Only the general results are of interest in the present connection. Of the riders who were seated, 41 per cent of the men and 13 per cent of the women were reading newspapers when observed. Of those reading newspapers, 15 per cent of the men and 21 per cent of the women were looking at the advertising. When the riders were standing, 22 per cent of the men managed to read the papers, but only 7 per cent of the women were doing so. Of those standing and reading the papers, 15 per cent of the men and 26 per cent of the women were reading the advertisements. These results indicate that roughly 15 to 20 per cent of the interest of newspaper readers on the surface cars or elevated or subways goes to the advertisements.

MAGAZINES

More Leisurely Attitude. Two limitations of newspaper advertising were noted in the preceding section, and magazine advertising

¹ Strong, E. K. "Habits of Passengers in Street Cars, Elevated and Subway Trains, as Regards the Reading of Advertising." Report No. 3, Association of National Advertising Managers, 1913.

is superior in both these respects. In the first place, the average person reads a magazine in a much more leisurely fashion than he reads a newspaper. He seldom reads it on a short ride or "in between times" and is often relaxed or even killing time. In the magazine, furthermore, the editorial material is frequently read consecutively rather than by jumping about and scanning headings. This more leisurely attitude, consequently, may carry over to the advertising in the magazine so that the advertiser need not work so rapidly. Provided the advertisement has good initial attention value, it is not quite so necessary to condense the message, but it may be possible to expand and elaborate it.

Art Work. In the second place the magazine is superior to the newspaper in presenting opportunities for art work because the smoother paper permits finer screened half-tones. The magazine, likewise, lends itself more readily to printing in several colors. The psychological aspects of color have been discussed earlier.

Reader Interest. It is often possible to obtain more information about the quality of magazine circulation than of newspaper circulation. Subscription lists yield data as to the subscribers' occupations. Many magazines go to special groups, such as scientists or tradespeople, and advertising can make obvious adaptations to those particular readers (cf. p. 138). Systematic observations have been conducted to determine the extent to which people read magazine advertising. Scott observed persons in libraries reading magazines, and about 10 per cent of the time they were reading advertisements. These findings have been criticized on the ground that most of the subjects were loafers and not typical of the average prospects. Stanton, in a similar study of readers in a variety of public places (p. 205), found about 35 per cent, on the average, reading advertisements at the moment of observation. The percentage was slightly higher in medical waiting rooms and barber shops and slightly lower in reading rooms, hotel lobbies, and libraries, but the differences were not large. While most of these persons may have been "killing time," they could not all be classed as "loafers." The Gallup method of interviewing persons as to what portions of the medium they recognize as having read contributes to the present problem. Preliminary data for four different magazines, covering six issues of each, indicate that the average editorial feature and the average advertisement are nearly equal in attention value.

DIRECT MAIL

With newspaper and magazine advertising it is impossible to predict whom the copy will reach. Mailing the advertisement to the individual prospect is less of a shotgun procedure. The prospects can be selected on the basis of economic status or interests and the copy can be adjusted to the different types of individuals as far as seems desirable. Passing mention should be made of the importance of getting the address correct. Over ten million pieces of advertising mail are destroyed yearly by the Dead Letter Office, and many millions more are returned to the senders because of inadequacy of the addresses.

Sales Letters. The most obvious of these direct mail procedures is to send the prospect a letter. In this process, the problems of attention are crucial, and it is difficult to detour the letter around the waste basket. Some of the devices previously discussed can contribute to this end, such as color, pictures, novelty, headings, or an arresting idea at the outset of the letter. It is also possible to send follow-up letters after the original and rely on the cumulative effect to arouse attention. Even though the prospect ignores the first few, he may begin to notice the subsequent ones due to the summation effect (p. 359).

The question arises as to the comparative merits of typing individual letters and of using some multigraph procedure which may be given an individual touch. The difference in cost is considerable. The psychological problem is that of giving the letter the personal touch. One usually pays more attention to something that is written to him individually than he does to a form letter. He is not so certain at the outset that it is "another advertisement." Sometimes a multigraphed letter is used, but space is left for typing in the name of the individual. It may be possible to make the copy so carefully that the typing and the multigraphing will match, and the individual will think that he is receiving a personal letter. Another possibility is to have the body of the letter typed mechanically by the same machine which typed the address, using a principle similar to that of the record on a player piano. Another method is to write the letter out in longhand and reproduce it by an etching process which may deceive the reader. At any rate, the more the letter appears personal, the more likely the reader is to take it seriously and pay attention to it. Some concerns also achieve this personal touch by

sending out announcements of a sale to their selected list of customers, stating that this announcement is being made prior to newspaper announcement for their particular convenience.

Some consideration may be given to attention and memory devices in the stationery. A reproduction of the trade mark or label at the top may be recognized and catch attention because of familiarity. It will also serve as an additional reminder of the product. Slogans may be used in the same fashion, as, for instance, the caption at the head of the stationery, "Columbus, the convention city." A forthcoming conference or exhibit may issue special stationery embodying a list of all the committees and use it for general correspondence. Phantom pictures may be printed lightly on the body of the stationery with the letter typed on top of them. The pictures should not be so pronounced as to interfere with legibility. The person reading the letter gets the advertising incidentally in the background. A more startling use of pictures in direct mail was the following case: An advertiser of summer cottages mailed prospects a picture of a rustic sign pointing down the lane and carrying the caption "To the Cottage of ——" with the name of the prospect included on the sign. The individual touch was arresting and ensured the reading of the circular.

Printed Announcement. Broadside may be used similar to a large folder, with one side printed as a single piece and the other with copy treated much like a single full-page advertisement. If the prospect actually unfolds it, the size of the broadside is impressive and holds his attention for a moment. Smaller folders lack this size element. The handbill is the lowliest of these printed announcements, with a brief, pointed message.

Envelope stuffers may be included with the electric light or telephone bill. Some of them give information about additional facilities or services of this particular utility. Such a stuffer should be carefully planned because it is competing with the bill for attention, and the average recipient of a bill is not particularly cheerful about it. Similar stuffers are sometimes placed in pay envelopes. This is a particularly delicate situation, even more so than enclosing them with bills. Stuffers may also be included with an ordinary sales letter. An Indiana firm actually enclosed a dollar bill with their letter, and the statement "Your dollar will go farther," and so forth. The novelty ensured that the recipients would at least read the letter. Provisions were made for the return of the dollar

by those who did not apply it to the suggested purchase. This letter was sent only to prospects who were receiving a salary of over five thousand dollars. The dollar would appear larger to other recipients and they would be more inclined to keep the money. It is claimed that the scheme was successful. A similar device has occasionally been used in soliciting charity subscriptions by enclosing a dollar and asking the reader to send back another one or a larger bill with it.

Reprints. If a selling point involves scientific principles or the results of experiments, a reprint from a scientific journal reporting the experiment will constitute an effective enclosure. The prospects who would react appropriately to such an enclosure would be limited to those familiar with scientific journals and their significance. The value would likewise depend upon the reliability of the author of the reprint and the confidence the recipient might have in this source of information.

SAMPLES

Samples are a convenient procedure for bringing the product to the attention of the prospective user. One psychological principle involved is that if a person is induced to use a thing he is more apt to remember it than if he merely observes it or is informed about it. Moreover, if he likes the sample he may want some more and thus purchase a supply. The sample should be large enough so that an adequate trial can be made. A few mouthfuls of a food product are insufficient for a determination of whether one likes it or not. It is advisable to provide at least one "helping." A soap manufacturer gave two cakes of laundry soap as a sample on the theory that a single one might get mixed with the regular soap and the user would not notice its superiority. Furthermore, it sometimes takes a number of experiences to overcome an old taste or preference, such as that for a cigar or a beverage.

The policy of charging for the sample has its pros and cons. If the product is apparently of considerable value a free sample may tend to cheapen it, and the recipient believes it cannot be worth so much after all. Receiving a free box of candy would lead one to suspect that it does not cost the manufacturer very much, whereas with a stick of chewing gum no question of cost arises. Charging for the sample decreases the number who will request it, but deters

others who make a practice of collecting samples. The writer knows of one family which kept itself in breakfast food for a year by systematically sending in coupons. There are organizations which deliberately collect and sell samples. A representative is tipped off by the janitor of a medical office building when a lot of professional samples have been delivered. Then the runners approach the professional men in an unguarded moment and buy up the samples for a trifle. These samples are collected at a central point and subsequently retailed through the stores at a moderate price but still at a profit. A charge sample would prevent this situation.

Other difficulties arise in the distribution of free samples when the distributors are unduly liberal. If the samples are displayed in a store with a "take one" sign, many people will take three instead of one. The important thing from the psychological standpoint is to get the sample used by a person who is an actual prospect.

SPECIALTIES

In specialty advertising the prospect is sent some presumably useful item which carries on it advertising material such as a trade name or other reminder of the product. Hundreds of concerns manufacture specialties for advertising purposes, ranging all the way from corkscrews to balloons and from calendars to pencils. The most fundamental psychological consideration is the utility of the specialty for the recipient. Reminder pads for persons who never have engagements, ash trays for members of the anti-cigarette league, or match scratchers for homes that are entirely electrically equipped would miss the point. If the specialty is useful it serves not merely as an occasional reminder but tends to build good will. The recipient is mildly grateful to the donor for having sent him a useful item. A specialty that is actually desired but is of poor quality may do more harm than good. One may appreciate the free blotter, only to find that it makes his signature illegible. The resulting emotion is directed against the concern which furnished the poor blotter. The specialty may be adapted somewhat to its destination. The same type of calendar, for example, would not be appropriate for all prospects. A person might hang on the wall of his office a calendar which would be inappropriate for his home.

PUBLICATIONS

Publications constitute another direct advertising medium. The catalogue is the most frequent instance, and may be designed for long-time use or merely to advertise a brief sale. Catalogues depend primarily upon voluntary rather than involuntary attention on the part of the prospect. Nevertheless, the outside of the catalogue is worthy of some consideration from the attention standpoint. An arresting cover may start a person reading the publication and voluntary attention will do the rest. The house organ is another type of publication and may build up a general reputation for the concern. Some house publications are distributed to limited groups of prospects.

PHONOGRAPH RECORDS

Phonograph records are sometimes used to carry advertising. Small records of light weight are sent through the mail or delivered by messenger. A printed statement suggests that the recipient play the record because it contains something of interest to him. The first time one receives such a record the suggestion is practically irresistible. The record gives a brief sales talk, with or without a musical introduction. Like other devices which depend primarily upon novelty for their attention value, such a procedure would not work many times with the same prospect. He would play the first two or three such records, but thereafter would realize that it was another advertisement and would discard it or give it to the children.

TELEGRAMS

Telegrams are occasionally used as direct advertising. Almost everyone is conditioned to react promptly to a telegram with a high degree of attention. Consequently, some advertisers find it profitable to send such telegrams either at the usual rate, from headquarters, or to make arrangements with the company to have a number of them typed in one city and delivered by the regular messenger. The procedure is satisfactory when the destination is a business office. The force has been trained to give telegrams priority, and even major executives have a well-developed habit

of reading telegrams without much ado. If, however, advertising telegrams are received in large numbers the office practice may be varied and the telegrams sorted by some clerk into those that are advertising and non-advertising. A tooth paste campaign in England employing this technique was not successful.

Sending advertising telegrams to the home is psychologically indefensible. There the telegram usually means bad news. The doorbell rings, the housewife sticks her head out the upstairs window, the boy says "Western Union," she dashes downstairs with vivid imagery of corpses and morgues, and then finds an innocuous advertisement. The sudden change in attitude constitutes a relief, but she will dislike the advertiser who gave her the fright.

TELEPHONE

Some advertisers employ the telephone as a medium by having an employee call the prospect and then give him a brief sales talk. Some question may be raised as to the advisability of this procedure. Subscribers go to the telephone expecting messages from friends, and then the advertising comes as a shock. The conflict of attitudes is unpleasant, and arouses ill will toward the concern that produced the interruption. The telephone may also take the place of or supplement the coupon. The advantage lies in the comparative ease of reaching for the telephone. A fuel concern in an Eastern city hit upon this fact accidentally. They were featuring a new brand of coke with the usual request coupon asking a representative to call, and it occurred to them incidentally that some people might prefer to telephone. Their telephone number had been changed recently and was listed incorrectly in the directory. It was decided in the emergency to print the telephone number in the advertisement. To everyone's surprise 94 per cent of the responses to the advertisement came by telephone. Subsequent experiments indicated that the best arrangement was a mention of the telephone number in bold-face type just above the regular coupon.

MOVING PICTURES

The media just discussed were "direct" in that the advertisement goes to the prospect. We shall now turn to indirect media or location advertising in which the prospect goes to the advertise-

ment. In the moving picture theater the screen secures rather complete attention because of the absence of other stimuli and the fact that motion is intrinsically a strong incentive to attention. Novel devices are feasible, such as floating type and animated pictures. These points were covered in Chapter X.

Early advertising in the moving picture theaters was overdone, aroused ill will, and finally was limited to the announcements of forthcoming attractions or occasionally to some non-commercial matter of great social import, such as contributions to a charity. The advertisement of forthcoming attractions does not strike a discordant note because the audience is interested in future amusement as well as present. Surreptitious introduction of advertising may be successful, but if the fact becomes obvious it arouses resentment. The advertiser is loath to abandon a medium which makes such claims on the attention of the prospect.

CAR CARDS

Cards in the street cars or subways constitute a good medium from the attention standpoint. The rider frequently has nothing else to do but look at them. Some persons read the paper, but in many cases the motion makes that pastime unpleasant. One cannot stare at his fellow-passengers across the aisle for very long without embarrassment, and if the car is underground there is no view out the window. By a process of elimination one looks at the cards. The only difficulty is that the range of vision can include only a few of them. The cards, however, may be arranged to move along the car so that if a person watches long enough he can see all of them. Advertisements in taxis or airplanes are similar in principle, but the tendency is greater for the rider to be interested in what is going on outside so that other things compete for his attention.

THEATERS

The curtain on the theater between the acts provides a good advertising medium, because the audience is doing nothing during that period and will inevitably read what is before it. If the copy accords with its present attitude toward amusement, such as advertisements for restaurants to attend after the show, this medium is quite effective.

WINDOW DISPLAY

Window displays receive the voluntary attention of window shoppers who are deliberately looking for ideas, and the involuntary attention of passers-by who are attracted by some feature of the display. The principles discussed earlier in connection with making the advertisement artistic and pleasing apply to window dressing. Presenting in a window items which are on sale inside is analogous to sampling, because with many products such as clothing, vision is the principal way in which the product is experienced. The window display may also create atmosphere for the store and thus operate as an indirect suggestion. An attractive window suggests that all the merchandise is attractive and in good taste. A display of a large quantity of a product gives an impression of magnitude which may attach itself to the store as a whole. The window may appear to contain half a ton of salted peanuts, although they actually constitute a thin shell placed around a framework. Another good feature of the display is that it facilitates carrying out the suggestion of buying (p. 72). The prospect merely has to enter the store and walk down a few aisles to secure the item which just impressed him in the window. This medium has a flexibility as great as that of the newspaper. New Year's Day is spent by the window trimmers of a department store in dressing the windows with spring styles. At other seasons windows can be adapted to forthcoming events such as football games or horse shows. Novelty may be employed. A weaver operating a loom in the store window is a means of arousing interest in fabric and the clothing which is sold in the store. Even a worker rolling cigars in a window will draw a crowd and arouse interest in the product.

WHISPERING CAMPAIGN

A type of indirect advertising which has possibilities is the so-called whispering campaign. The method consists of hiring persons to go about, make remarks about the product, and let these remarks be overheard. A department store employed girls to ride elevators in office buildings and converse in a tone which could be overheard about the dress bargains at the store. As a result some three thousand dresses were sold. Unfortunately some campaigns of this sort were organized in order to point out undesirable features of a com-

peting product. A representative dashed into a store, asked for a brand of cigarettes, and said, "No, don't give me those, because they have a contagious disease in that plant," and hurried out before he could be questioned. This procedure is ethically questionable, like any derogatory statement regarding competitors, especially if the statement is not based on truth.[†]

OUTDOOR ADVERTISING

Prospects spend an appreciable amount of their time outdoors, and the advertiser who is to employ location advertising may well consider the outdoor possibilities. Posters on street cars or trucks constitute a case in point. Signs in front of a business establishment are another instance, particularly the illuminated signs such as the neon type. When discussing the psychophysical law (page 181) it was noted that the apparent intensity and also the attention value of a display depends on the intensity of the background against which it is perceived. The same principle applies to the neon sign. If every store has one, it does not create individuality any more than an individual Chinaman creates an impression in Hongkong. Having the sign flash introduces a type of contrast which was discussed earlier. The mere magnitude of the sign may be a factor with its thousands of lights and miles of wiring. The culmination of this type of display is the electric sign with moving features included.

Poster board advertising is the most widely used of the outdoor types. With its large size and its effective use of color, it has distinct attention value. On the other hand, the observer is moving either on foot or in a vehicle, and this activity may operate as a distraction. It is unwise for the advertiser to attempt a very long message on the poster board because the motorist can devote only a brief glance to it. If that glance serves as a pleasant reminder of the product the board may be considered to have performed its mission. Poster board advertising is the object of much criticism on the ground that it clutters the highways and obscures the beauties of the landscape. No one would dispute this charge with reference to the cruder manifestations such as signs of assorted shapes and sizes tacked on trees or posts or the large, flamboyant posters with poor art work, on the sides of barns. The outdoor advertisers themselves realize these difficulties, and such displays

[†] Anon. "Whispering Campaigns for Sale," *Advertising and Selling*, November 8, 1934, 24, 48.

are outlawed by the official organizations. On the positive side, attention may be called to the fact that many a vacant lot littered with tin cans has been taken over by an advertising concern, which landscaped the lot, erected attractive boards, installed pink gravel walks and evergreen trees, and made a respectable corner out of a previous junk heap. Some standardization has taken place in the way of borders, lattice work, and general appearance of poster boards. In many cases the art work is well done, so that the whole industry is subject to much less criticism than it was some years ago.

Experimental work on outdoor advertising is limited in comparison with the scientific study of other media. Many of the problems must be studied in the field rather than in the laboratory. Preliminary work has been done by sending out questionnaires which give a description of certain poster boards and ask the recipient to check the boards he has seen. House-to-house interviewers have employed a portfolio with reproductions of recent poster advertising and have requested the interviewees to select those which they recognize. The recognition scores could be compared with the location or the duration of the showing. The results yielded a hint, for example, that a seventy-day showing from the standpoint of mere recognition was little superior to a thirty-day showing. However, the boards involved in this investigation were very limited in number and final conclusions could not be drawn.¹ It developed further that posters in a "representative showing," that is, a showing in which the number of persons passing the location daily, was about equal to the population of the area, was seen by 62 to 76 per cent of the persons in a populated area, in winter. It is probable that the number of persons seeing the advertising in good weather would be still greater.

Poster board advertising has in common with other media some problems, such as legibility and the effects of color and pictures. Other problems are unique, such as the location of the display and the effect of its surroundings. For solving such problems special techniques are necessary. One of these which has already been described involved carrying subjects past the poster board displays in automobiles and then using conventional recall and recognition methods for materials on those boards.² In another

¹ Aust, F. A., and Harrison, R. F. *The Values of Art in Advertising*. Banta Publishing Co., Menasha, Wis., 1932.

² Burr, H. E., and Crockett, T. S. "A Technique for Psychological Study of Poster Board Advertising," *Journal of Applied Psychology*, 1928, 12, 43-57

experiment a similar technique was used, but the subject was carried individually in the seat beside the experimenter, who was driving. The subject wore a light helmet attached by cords to a device behind the seat in such a way that rotation of the head to right or left was recorded graphically on a moving tape. The experimenter observed the motions of the subject's eyes in a convex mirror and made notations on a knee pad. The pencil with which the notations were made closed an electrical circuit within the barrel when pressure was exerted with the point. This circuit operated a magnet recording on the moving tape so that the eye-movement notes could be synchronized with the head movement. Appropriate signals by the experimenter on the moving tape when passing certain standard landmarks made it possible to analyze the records with reference to the exact position of the automobile and the subject at the time any particular eye or head movements occurred.^{*}

An incidental result of such studies is the frequency with which persons passing poster boards fail to see them at all. When forty subjects were carried individually past a series of fifteen or eighteen consecutive boards, fifteen of these individuals did not glance at any board. These fifteen were then driven past the boards again, and seven of them still failed to look at the boards. Poster displays obviously do not get the attention of all the motorists who pass them.

Another problem is that of determining the optimum distance of boards from the street or highway. With one series of displays which was set close to the sidewalk it developed that a larger proportion of them were recalled when the car passed on the opposite side of the street. A certain minimum distance of the boards from the highway lane is apparently necessary. If they are set back from the road, the additional width of the street does not constitute an appreciable factor.

In the experiment in which the subject was seated beside the driver there was 103 per cent more head movement toward the boards when they were on the right side of the car, and memory for boards on that side was 53 per cent superior. Whether this rightward tendency of attention is due to the position in the car or to some more fundamental factor such as habits of looking toward the right or watching the right edge of the highway, cannot be

^{*} Ringwald, J. C. "An Investigation of Some Psychological Factors Involved in Poster Advertising." Ph.D. Dissertation, Ohio State University, 1931.

determined from the present experiment. If the last alternative proves to be the correct one, the implication would be the desirability of placing the poster boards on the right side of the road wherever one-way traffic existed.

The approach to the poster board constitutes another variable that is of interest. Some boards may be visible for a distance ahead through open country, whereas others are approached suddenly when passing a building. The results on this point are inconclusive in the present experiment, but give a hint of the advantage of the sudden approach. If this trend is corroborated, it is probably due to the contrast of passing an uninteresting building and then suddenly encountering a large, brightly colored board.

The presence of distracting stimuli in the vicinity of the poster board is a factor to be considered. In one instance there was a playground across the road from the posters. The head movement records showed 48 per cent more movement toward the playground than toward that same side of the road when the distraction was absent. In another case, workmen making a fill caused 35 per cent more head movements than normal toward that side. Consequently, in selecting a location for a board, consideration should be given to other possible stimuli to attention in the immediate vicinity.

A series of boards may be arranged in different ways, such as a continuous series or groups of four or five. It would seem theoretically that the latter arrangement would be superior, as it would allow a momentary opportunity for the impression to become fixed before reaching the next group, just as in learning experiments a pause after the series facilitates its becoming integrated. In the present case a comparison of this sort was available but the results were not convincing. There was 22 per cent better memory for the boards presented in small groups, but the difference was not very significant from a statistical standpoint. Incidentally, it was found that a semi-head-on location for a single board was extremely favorable for traffic going in one direction. Even dividing its superiority by two in order to compensate for the fact that only half the traffic would face it, the result still was better than that of the average board which was parallel with the highway.

A final problem deals with the location of an individual board in the series. The results indicate that conventional principles of primacy and recency do not operate here exactly as with other types of material. The subjects did not recall the first few boards

in a continuous series so readily as those subsequent to the first few. The amount of head movement toward the first three boards was distinctly less than toward some of the remaining boards. It appears that the subject passes a few boards before they begin to stimulate him and he becomes aware of their presence. At the other end of the series the departure from the normal tendency was not so pronounced.

PACKAGES

The precursor of the packaging idea was a merchant who noticed that people were too impatient to spend much time haggling over a price, and announced a "one price" policy at his store in lower Broadway. Grocers meanwhile observed that the customers did not like to stand around the retail store while the clerk weighed out one pound of the product, so packaged groceries began to appear on the shelves. This convenience was a big factor in creating public acceptance of the package. Another item was the growing interest in hygiene — some of it fostered by the advertisers themselves. The package protected the product from various types of contamination. The next step involved giving more attention to the package from the artistic rather than the purely utilitarian standpoint. Recurring to the earlier discussion of atmosphere, anything in the background or even the container of the product may arouse feelings which will spread and influence the judgment of the customer regarding the quality of the product itself. More recent considerations are the design of a package from which the product may be poured, and even adaptation of the size of the package to the hand of the average user. The package, like the trade mark, may be employed to produce favorable associations and to create good will. A number of products may be marketed in packages similar in design and the attitude aroused by one of them will carry over to the others. The soup can with a red and white combination on the label for different kinds of soups put out by one company facilitates this type of carry-over. A cheese concern which featured importations from different countries had the same general design on all the packages but the appropriate flags or the colors of the flags in a stripe around the package. The package has recognition value like the trade name or the trade mark, and enables the prospect to select quickly the product which he wishes. Inserts

in the package such as recipes or directions for cooking, or even advertisements for related products, offer other possibilities. The user is inclined to read the insert, as it will not be discordant with his interests of the moment.

COUNTER DISPLAY

When the prospect approaches the counter, about to select some particular commodity, the display which greets him there may influence his choice, especially if he is undecided at the moment and open to conviction. When he is purchasing one thing an attractive display of another product may attract him. A case was noted earlier in which open displays under the glass table top in a drug-store sold considerably more of those brands than of the ones which were not displayed. A precaution to be observed in such situations is the avoidance of unpleasant associations. It would be undesirable, for example, to show surgical appliances or items suggesting unpleasant aspects of hygiene under the table top where one is eating ice cream. An appropriate display would be other edibles, such as candy.

TRAVELING DISPLAY

The displays just discussed are stationary. It is possible to vary the procedure by putting the materials on a truck or even in a special railroad car and sending them from place to place. In addition to reaching more prospects in this manner, the device derives some benefit from novelty. The problem then arises of getting the prospect to come into the display. This may be achieved by advertising in the papers or by a simultaneous attention-getting device, such as music or ballyhoo.

FREE NEWS

If it is possible to have a product mentioned in the press as a news item the publicity costs nothing. Railroads and airways attempt to induce prominent people to ride on their trains or airplanes and then to have the fact mentioned in the papers. They believe it worthwhile to call the attention of the public to the fact that such a prominent person took such a prominent train. The scheme works the other way, however, if there is a wreck. Pub-

licity for this event will arouse fear on the part of some potential patrons. Of late years the press is more hesitant to give this free news. Similar considerations arise with reference to radio advertising. In the early days the sponsors secured much free advertising in the listing of their programs, which gave the name of the artist and also the sponsor. When it became apparent that radio advertising was making inroads upon newspaper appropriations the publishers eliminated the free publicity involved in naming the sponsor in program listings. Some sponsors, under these conditions, attempted to circumvent the restriction by selecting artists' names which would suggest the commodity to the readers. A gum concern, for example, featured Myrtle Spear and Archie Minter, hoping that they would appear in the listings as Spear and Minter, thereby suggesting Spearmint. The astute publishers, however, listed them as Myrt and Arch.

Expositions and fairs offer further opportunity to display the product to persons who may be interested. Manufacturers of scientific instruments present exhibits at conventions.

SUMMARY

Newspaper advertising must reckon with the hasty reading habits normally involved. Along with them, however, goes a tendency to react to the advertisement promptly if at all. The newspaper is a flexible medium, and copy can be changed on short notice to take advantage of an unforeseen situation. Some types of copy are released on a schedule depending on the weather. The art work in newspapers is inferior to that in other printed media, because the news print necessitates a coarse screen for the half-tones. Studies of reading habits indicate that an appreciable portion of the readers peruse the advertisements.

The magazine reader, on the other hand, takes a more leisurely attitude so that the advertisement does not have to work so rapidly. The art work, moreover, is superior because of the smoother paper and the finer screened half-tones. Observations of readers in the various studies reveal from 10 to 35 per cent looking at advertisements.

Direct-mail advertising makes possible a selection of the prospects. The sales letter needs attention devices to keep it from the waste basket, and an ostensibly personal touch is desirable. Printed

broadslides may be impressive by their mere size. Envelope stuffers should be used judiciously when enclosed with a bill or in a pay envelope.

Samples are a convenient method of bringing the product to the attention of the prospect and impressing it on his memory. They should be large enough to permit adequate trial. A free sample of an expensive product may tend to cheapen it. The charge sample limits distribution, but forestalls those who make a practice of collecting samples.

The effectiveness of specialty advertising depends on the utility of the item for the recipient. If it is used frequently it thus serves as a reminder of the product. If it is of unsatisfactory quality, however, it may arouse an unfavorable emotion and do more harm than good.

Catalogues constitute a good medium in some cases, and may be issued for a sale or for long-time use. Phonograph records with an advertising message on them are occasionally distributed. Their value is largely proportional to their novelty, and they would not be successful with the same prospect many times in succession. Telegrams bearing an advertising message receive prompt attention in an office because of well-established habits of giving telegrams the right of way. Sending them to the home is inadvisable because there they connote bad news and the recipient will be disgruntled at the sender who caused the momentary worry.

It is possible to call the prospect on the telephone and give him a sales talk. This too is a questionable practice psychologically because the subscriber is expecting a quite different and more acceptable message when he answers the telephone, and the advertisement may arouse hostility toward the product mentioned by the other party.

The moving picture screen has good attention value, but the audience resents advertising other than that of forthcoming attractions. Car cards and theater curtains secure considerable attention because the prospect has nothing else to do but look at them.

The window display affords visual samples of the product. It may create atmosphere for the store and can easily be adapted to changing conditions. The "whispering campaign" as an advertising medium involves hiring persons to go around, frequently in pairs, conversing about the product in question.

Poster board advertising derives attention value from its size, but is handicapped by the fact that the prospect is moving. In studying problems of outdoor display, recall and recognition techniques have been employed in interviews. Subjects have also been tested similarly after being carried past a series of poster boards in an automobile. In one case record was made, by appropriate apparatus, of the head movements of the subject en route. Results of such investigations include the following: The boards some distance back from the highway were superior. The subject seated beside the driver tended to look more toward the right side of the car. A sudden approach to the boards was slightly superior to an arrangement in which they could be seen a long distance ahead. Distracting stimuli such as a playground in the vicinity of the boards had an unfavorable effect. There was a suggestion that boards set in groups were better than a continuous series. A semi-head-on location proved unusually effective. The first few boards in a series did not have the superiority that would be expected theoretically. It is possible that the subject passes several boards before he begins to be aware of them.

Convenience and interest in hygiene have contributed to the almost universal use of packages. Other features are the possibility of lending atmosphere to the product or transferring the good will incident to one product to another with a similar design on the package.

Counter display and open display under a table top influence attention at the point of purchase. Traveling displays may be organized. Free publicity is secured for a product sometimes by making its arrival a news item. Expositions, fairs, and conventions provide opportunity for exhibits.

CHAPTER XXIII

GOOD WILL

INTRODUCTION

"I AM not interested in advertising which merely makes a sale but in advertising that makes a customer; for I want my advertising to build a future as well as a present for my business." The above quotation from the advertisement of an agency purporting to be a quotation from a letter from one of their clients epitomizes the most desirable philosophy of advertising which is current. This point of view is beginning to permeate advertising and selling quite generally. Time was when good will received very little consideration. If the manufacturer was aware of its existence he certainly did not appreciate its importance. His concern was to make the immediate sale, and he never worried as to whether he would encounter that customer again. The extreme embodiment of this point of view was the vendor who appeared at the country fair or at the cross-roads, held forth in stentorian tones and with startling but inappropriate polysyllables, possibly demonstrated a corn remedy on the shoes of an accomplice planted in the crowd, sold as many bottles as possible on the spot, and then left town before the customers realized collectively that something was wrong. With slow means of transportation and inadequate facilities for communication this procedure was comparatively safe, and with manufacturing on a small scale there was little prospect of exhausting the entire market on one round. But even with dealers who maintained a permanent establishment somewhat the same philosophy was current. The immediate sale was the only important consideration, and what might happen thereafter was beyond the horizon. If the merchant disposed of his product it did not occur to him to inquire as to whether or not the consumer was satisfied.

This philosophy is now changing. The attitude of the consumer after the purchase has an influence upon his subsequent buying behavior. If he is satisfied he will return for more of the product and may even tell his friends about it. If he is dissatisfied he will try another brand, and may even broadcast his dissatisfaction.

Good will should not be dismissed with a shrug of the shoulders as a mere philosophical concept or an accounting device; it actually means dollars and cents. Advertising may make a definite contribution to the promotion of good will. In order to round out the discussion, however, mention will be made also of certain other aspects of marketing which contribute to that same end.

REASONS FOR GOOD WILL

The fundamental principle underlying good will is "affective expansion," that is, the tendency for feelings and emotions aroused by one stimulus to spread and attach themselves to other stimuli. A familiar example is the casual unpleasant remark or bit of bad news that spoils the entire day. Conversely, an unexpected letter or a rise in the stock market makes everything congenial for hours. In the same way, a single unfavorable incident in connection with a product or the selling procedure arouses an unpleasant emotion which may have a far-reaching and lasting effect. The minor annoyance produced by a loose contact on an electrical appliance may create prejudice toward the electric light company as a whole. The failure of an automobile to deliver quite the mileage prescribed in the advertisement will produce a dislike for all aspects of that machine. A tactless remark over the counter by a salesperson may terminate the customer's buying habits with reference to that particular store.

VALUE

The good will accruing to a business organization is a difficult item to measure. Casual inquiries among consumers yield information of little value. Although a person who is disgruntled about an organization or has some pet dislike is likely to speak up when given the opportunity, the person whose attitude is favorable or neutral is more inclined to give the answer which he thinks the other party will like. The practice of evaluating good will in financial statements varies considerably among business concerns. Some of them find it difficult to evaluate, and merely quote it as one dollar. Among such firms are the following: Abraham Strauss, American Rolling Mills Company, Auburn Automobile Company, Liggett and Myers, and General Mills. On the other hand, some concerns

value their good will quite highly. The following are typical: American Tobacco Company, \$54,000,000; General Motors, \$42,000,000; Bunte's, \$1,000,000; Chrysler, \$25,000,000; Du Pont, \$27,000,000; Zonite, \$12,000,000; Coca Cola, \$23,000,000. Some legal rulings as to methods of determining good will are confusing, and if applied to some firms would yield large negative values. After all, our concern is with good will in the psychological rather than the accounting sense.

MEASUREMENT

A psychologist confronted with the problem of obtaining a measure of the good will manifested toward a particular organization would attempt to obtain the information indirectly by concealing the crucial item in the midst of other items. The persons interviewed would then be unaware of the actual purpose of the investigation and the element of suggestion or the desire to give an acceptable answer would be absent. In one such investigation it was desired to determine the attitude of the customers in a given city toward a leading store. The experiment was handled through a research organization which hired interviewers who were unaware of the sponsor. If they had known the real purpose of the interview some element of suggestion might have entered, and they might have unconsciously made an effort to obtain the type of results which would be favorable to their client. The interviewees were asked to rate a series of items according to whether they found them annoying, slightly unpleasant, neutral, slightly pleasant, or very pleasant. The numbers from 1 to 5 were used by the interviewer to record these five degrees of attitude. The name of the store under investigation was included in the list. The highest average rating was obtained for one of the city parks with a figure of 4.3, and the lowest average rating of 1.6 was obtained by the city garbage wagon. The store in question was about midway between these points. A technique of this sort might be applied on different occasions in order to detect any changes in attitude resulting from an advertising campaign, a new policy regarding returned goods, or anything else in the conduct of the store which might affect the good will of the public.

QUALITY

When considering factors conducive to good will, one that comes to mind first is the quality of the product. It is natural that if the item comes up to expectation, yields good service, wears well, tastes well, or functions effectively in whatever way it should function, the user will be satisfied and will return for more of the same product. The negative aspect of this principle is more obvious. If something goes wrong the purchaser becomes dissatisfied and, as suggested earlier, may develop an attitude toward the entire organization which will militate against any subsequent purchases. Advertising often stresses the quality of the product as one of the major selling points. It is important that the quality shall measure up to the claims of the advertisement.

It is erroneous to assume, however, that quality of the product is the only appreciable factor which contributes to good or ill will. In some investigations it has been shown to be a very minor element. Former patrons of a furniture store were circularized as to why they had stopped buying at that store.¹ Dissatisfaction with the quality of the furniture accounted for less than 1 per cent of the cases, whereas indifference on the part of the salespeople accounted for 24 per cent.

Although the consumer's opinion as to the quality of a product is generally based on actual experience, it is possible to supplement and reinforce that opinion by tests or examinations conducted by some organization which is technically equipped. One of the women's magazines maintains a testing institute which places seals of approval on certain products. The following instance brings out the fact that these seals of approval actually do carry some weight. A manufacturer of a washing machine decided that this seal was superfluous as it had been used for a long time and everybody seemed satisfied with the machine. He discontinued the use of the seal, but customers and dealers very soon began to inquire as to why it had been dropped, fearing that there had been some change in quality and that the manufacturer was no longer entitled to use the seal. This result showed that the consumers had been influenced by the seal to a greater extent than had been anticipated, and within a year the situation became so convincing that the manufacturer resumed his use of the seal.

¹ Munchweiler, B. J., *Michigan Manufacturer and Financial Record*, Sheet No. 5, 1923; cf. also Hepner, *Psychology Applied to Problems of Business*, p. 476.

PUBLIC RELATIONS

In the Store or Plant. The department of public relations plays a large rôle in the maintenance of good will. The importance attached to this department by some organizations is manifested by the salary paid the head of the department. Although the contribution of this department often lies in personal contact to a greater extent than in advertising, nevertheless it is difficult to draw the line, and the creation of good will in person and in print have much in common. In many organizations the salespersons in the store are the main points of contact with the public, and the experience of any shopper will bear out the fact that customers receive widely varied treatment from different salesgirls. A few instances of discourtesy or mere lack of interest on the part of the salesperson may develop a permanently unfavorable attitude on the part of the purchaser, whereas, a few cases of courtesy and apparent interest in the customer's problem may make a permanent friend for the establishment. If a few of the people in the store are of the tactless variety the attitude will spread to the community through the ordinary channels of gossip, and thus become a serious problem for the department of public relations.

Efforts to improve these points of contact between the public and the store may operate in two ways — selection and training of salespeople. The former may be facilitated by the techniques of psychological measurement with tests or attitude scales. This book is not the place to recount the techniques in detail, but essentially they consist in analyzing the job, devising tests, trying them out on persons whose proficiency on the job is known, and then correlating the tests with this proficiency in order to validate the tests. Thereupon the tests may be given to applicants and selection made according to potential sales ability.

The other approach is through the training of salespeople. Among those who are reasonably acceptable from the standpoint of personality very considerable differences may be introduced by means of training, particularly with reference to those characteristics which promote favorable attitudes on the part of the customer. A sales training course generally involves discussion of the usual amenities, emphasizing courtesy, tact, patience, taking an interest in the customer's problems, and the like. This training is often supplemented by a program of service shopping, in which experts go about the

store incognito making purchases from members of the sales force and noting carefully the way in which the individual handles the situation. The service shopper may be purposely cantankerous or may ask difficult questions in the effort to observe the clerk's tactics. Immediately after the purchase, which is subsequently turned back, the service shopper writes a report on the observation. This procedure yields facts which may be brought to the attention of the salesperson in individual conferences, and his or her most glaring faults are pointed out in a tactful way. If, as the result of such a program, the sales force tries to leave practically all the customers satisfied, an important aspect of the public relations of the organization is covered.

Complaints. It is inevitable that the customer will sometimes find goods which are unsatisfactory for real or imagined reasons. The way in which the resulting complaint is handled is critical from the standpoint of good will. Some concerns assume that the customer is always wrong and that the proper technique is to make it as difficult as possible for him to receive an adjustment of the complaint. If he is confronted with a sufficient number of obstacles perhaps he will give up his efforts and keep the goods after all. The annoyance of that one instance, however, may affect the customer's attitude toward the entire establishment, and likewise influence the attitude of some of his acquaintances.

Other institutions, on the contrary, have the philosophy that the customer is always right and are very liberal and expeditious in adjusting complaints. Although an occasional customer may take advantage of them and return the dress after wearing it to a dance, they feel that it pays them to take an occasional loss of this sort in the interest of building up the reputation in the community that they always "treat the customer right." If one is in a group of women in one of the larger cities and the conversation is turned in the appropriate direction it is possible to detect pronounced attitudes toward the different department stores of that city.

Some concerns give serious consideration to the organization of their complaint department. Such a department usually has at its head a competent individual who knows how to meet the numerous contingencies which arise. The personality of the representatives whom the customer encounters is especially critical in this situation. The customer is usually in an unfavorable emotional attitude when he enters, and the wrong treatment will merely accentuate

this attitude. If the irate customer protests that the machine will not work and the irascible employee suggests that the customer broke it, the end of a fine relationship is in sight. On the other hand, the skilled adjustment representative may take the complaint as an opportunity to create an even more favorable attitude toward the concern on the part of the complainant.

It is a sound policy, scientifically, to study the complaints statistically. It is probable that there are many customers who are somewhat dissatisfied but do not go to the trouble of coming in and seeking an actual readjustment. It would be highly desirable to know about all these cases. The nearest approach to this information, however, is to assume that the persons who do come in constitute a typical sample of the entire group. If data are available as to the frequency with which the color looks different by daylight, the fabric is torn, the size is wrong, the person trying on the garment at home does not look as well as she did at the store, or the customer merely changes her mind, these data give some notion as to the locus of the important factors in the creation of good will so far as the complaint department is concerned.

Reception of Public. The actual conditions under which patrons are received when coming to make complaints or to interview a representative on other matters contributes to the public's attitude. In an earlier discussion (Chapter IV) note was made of the effect of atmosphere or background in influencing the attitudes toward a product. The same principle operates in creating an attitude toward the whole organization. In recent years the reception room has received some scientific and psychological attention. The problem was discovered first in some employment offices where applicants who had to stand around in an inhospitable waiting room went away with an unfavorable reaction toward the whole plant, but the same principles apply to any waiting room in which the public spends its time prior to an interview. The glass partition with the small hole through which the clerk conducts a peremptory inquisition is disappearing. A commodious, well-lighted, well-furnished room with somebody at the desk who knows how to smile makes a big difference in the customer's initial impression. One organization periodically sends its personnel men out for a week to hunt jobs incognito, and at the end of this period conducts an intensive seminar in which they report upon and analyze their experiences. They often find among their most vivid memories

the moment when they first entered the reception room. The mere physical layout may make a lasting impression and color one's attitude toward the organization.

An institution which has employees interviewing the public at a window or on the telephone may well give some attention to the phraseology used by the employees and their techniques for handling specific situations. One organization which has many contacts with the public by telephone relative to service or complaints maintains a system of observing the telephone conversation of their employees. A switchboard is available whereby an observer can plug into any one of the telephones in the main office over which a clerk is talking with a client. The observer cannot listen to all the conversations simultaneously but makes an effort to sample all the employees. Each employee knows that this observation is in progress, although he does not know just when the observer is plugged into his line. The system provides a certain amount of motivation. Its main purpose, however, is to detect service difficulties and to remedy them. It includes a classification of points in which a person may make good or bad contacts with the public. These are recorded in code notation during the service observation and this information is summarized and discussed with the employee. The material can be used also in training programs. The employee is interested in cutting down his "service failures," and very frequently things are called to his attention of which he was entirely unaware. He may have developed a habit, for example, of leaving the telephone abruptly to look up an account, and he needs merely to be instructed in the importance and desirability of excusing himself gracefully and apologizing on his return if he has been absent very long. Any unusual or awkward aspects of the employee's vocabulary will be noted in this procedure.

A minor point of contact with the public is the commercial truck. If the driver of such a truck commits some flagrant discourtesy on the road, the driver who is disgruntled thereby may notice the name on the truck, and the ill will aroused by the driver will spread to the organization which he represents. A commendable system is the notice carried on the rear of the truck to the effect that the driver will be glad to move over if you will sound your horn. After an individual has had a few unpleasant experiences with trucks and then overtakes one of those with such a sign and finds that it actually means what it says, an appreciable amount of good will toward the organization which is responsible for the truck may result.

HOME

Although most of the contacts with the public which are significant from the standpoint of good will take place in the store or office, a limited group of industries send representatives to the homes. This is especially true of the public utilities whose representatives go to the house to connect telephones, repair electric circuits, install appliances, or merely to read meters. In many instances these employees are the only actual contact of the customers with any representative of the organization. They pay their bills by mail and may occasionally make a complaint or a request for service over the telephone, but the only personal contact is with the representative who comes to the home. The conduct of these representatives may be rather crucial from the standpoint of good will. Some of the utilities have given very serious consideration to the matter of training and inspecting such employees. The writer is familiar with one program in which persons who read meters and "shoot trouble" were put in standard uniforms and coached on the simple fundamentals of courtesy. Prior to this program an uncouth-appearing individual, clothed perhaps in overalls, and a slouch hat banged on the door and demanded access to the meter. The housewife was almost afraid to admit him to the house. A few months later a uniformed and neat-appearing individual came to the door, inquired if it would be convenient for him to read the meter, removed his cap, wiped his feet, and thanked the customer upon his exit. The contrast in the behavior and appearance of these representatives did not escape the customer, and the utility in question found that this item loomed larger from the standpoint of public relations than almost any of their other activities directed toward this end. Having the power shut off for a short time was not nearly so critical a matter from the standpoint of good will as the appearance and conduct of the employee who came into the house to fix a fuse or read a meter.

EMPLOYMENT OFFICE

The employment office should be considered from the standpoint of public relations because many of the applicants may be potential customers. This possibility is especially important for utilities or for department stores which cater to a wide clientele. If such potential

customers must be rejected in the employment office it is important that this be done as gracefully as possible. If they have to wait around in an uncomfortable room and finally are received gruffly, told there is nothing available, and treated in a cursory manner, an unfavorable attitude toward the organization is created. If they are later in the market for the commodity which the firm is selling the ill will aroused in that previous contact with the employment office may deter them from purchasing if they can secure the product elsewhere. It is disappointing enough to be refused a job anyway, and it is much worse to be turned down in a gruff, peremptory, and entirely impersonal manner. The reception room is an important factor here, as in the complaint department discussed previously. The interviewer and the general interview technique is also crucial. If someone sits down with the applicant and talks with him about his qualifications and interests, even though there is no possibility of hiring him, this expenditure of time is worthwhile from the standpoint of creating a favorable attitude. If the applicant can leave with the feeling that it would have been a good place to work if the job had been available, a distinct contribution to public relations will have been made.

MAIL

Another medium for contact between a concern and the public is mail, where inquiries or complaints are handled through this medium. In such a case there is less danger of a tactless personality's creating an unfavorable attitude. The reply can be worked over more carefully and can be scrutinized after it has been dictated whereas in an interview an instantaneous decision is necessary. On the other hand, those handling such inquiries are in danger of slipping into a stereotyped procedure. If it is obvious to the customer that he is receiving merely a form letter he will not appreciate it so much as if the letter smacks of personal interest. Organizations which sell their products by mail are keenly aware of the possibilities of making the sales letter appear personal. They even go so far as to purchase a typewriter which will copy an entire form letter automatically after the personal name and address have been typed in by an operator. They do this because if the letter is reproduced by the ordinary process and then the name typed in, the reader is likely to detect the fact and respond less favorably because it is not a personal letter.

An aspect of dealing with inquiries that is of some importance is the mere lapse of time between the mailing of the inquiry by a potential customer and the receiving of the reply. One investigator sent in coupons for thirty-three products and recorded the number of days required for the reply to reach him. He computed the time that would be necessary for the reply to come back by return mail from the particular locality involved and then noticed how many days beyond that minimum were required.¹ The delinquency varied from one day for a well-known concern to forty days for another and an infinite number of days (that is, no reply at all) for still another. If the writer recovers from his cold, for instance, before the sample cold remedy reaches him he will not try it, and furthermore will be disgruntled. In the same study interesting differences were noted in the method pursued by the concern in following up the inquiry. Some merely sent the promised sample with no further comment. A rug company, however, sent a fifty-six-page catalogue, then a broadside of testimonials, then a tape measure for measuring the room for rugs, and several follow-ups thereafter. In the above-mentioned study some of the organizations undoubtedly created ill will by long delay or complete failure to answer the inquiry. If the person is interested, sends in the coupon, and then weeks elapse before he hears from it, the firm is lowered in his estimation.

The mail received in response to radio broadcasts deserves special mention. A minor study of existing policies was made by sending typical fan letters to a large number of sponsors. Seventy-two per cent of the letters brought replies, and 42 per cent of these replies appeared to be personal. The 28 per cent of the sponsors who ignored the letters, if this represented their general policy, might be overlooking very definite possibilities of creating good will. It is true that the work of acknowledging all the letters might be prohibitive. It would not be amiss, however, to sort them carefully in order to locate any which raised special problems and warranted personal reply. Although many fan letters are routine and expect no personal attention, occasionally an individual writes in such a way that the ignoring of his reply will definitely offend him.²

Some sponsors make an effort to capitalize the fan mail in the interests of good will. Those letters which seem to embody in-

¹ Meysere, S. J. "What the Coupon Brought," *Advertising and Selling*, April 26, 1934, 22, 34 ff.

² Anon. "A Radio Fan Checks Up on his Advertisers," *Advertising and Selling*, April 15, 1931, 16, 34-37.

dividual problems are answered carefully. For example, a man in Texas wrote the sponsor that the last note of their "yo-ho" theme song hurt his ear. While a short-sighted recipient of the letter would merely have had a good laugh, the advertiser in the present case wrote back to the sender that he and Beethoven were very much alike in that respect, and furthermore on a certain night they would change the last note of the theme song for his especial benefit. They actually made the change on the night specified, and needless to say the individual and all his friends were listening. Thus, a small group of Texans were "sold on" that company for a long time. Individual touches of this sort call for ingenuity, but have a definite psychological advantage if they can be achieved. Certainly, inquiries of this sort should be scrutinized and many of them, at least, answered with something more than a form reply. In some cases certain parts of the letter may be standard, but individual phrases can be worked in here and there.

ATTITUDE OF THE HIGHER EXECUTIVES

If employees are to make suitable contacts with the public it is obviously important that the higher executives set them an example. The mechanism of imitation is operative in this connection. If the employees themselves are treated courteously by their superiors there is a greater probability of their reacting similarly to the public with whom they come in contact. If the boss is a grouch he cannot expect his secretary to be a Pollyanna, at least, in the business situation. Although she might be able to forget her employer and react normally outside of the office, the general unpleasantness associated with her work would influence her on the job. Good morale promotes not only favorable industrial relations within the organization but favorable public relations outside it.

SERVICE

A practice which has been adopted with increasing frequency in recent years and which is aimed directly at good will is servicing the product. Its underlying principle is that the sale is not completed until the buyer is satisfied. To that end an attempt is made to keep the product in satisfactory condition for some time subsequent to the purchase. The automobile, for instance, is given several free in-

spections. The electric household appliance is serviced for a year or more, and minor repairs are made without cost. If the product operates effectively for a reasonable period of time and then breaks down, the owner may assume that it was his own fault and due to misuse or normal senescence, and not something for which he should blame the manufacturer. An early failure, however, is blamed upon the product, with resulting ill will. It is found that service may even be desired where it is quite unexpected. An analysis of two thousand women's opinions regarding hosiery indicated that a considerable proportion wanted service such as mending runs. They also wanted further information about the merits of a silk heel versus one of silk and cotton. An analysis of some thirty thousand phrases in advertisements for hosiery showed that only 7 per cent dealt with service, whereas the rest dealt with the qualities of sheerness, the mist of illusion, or the "mere froth" of the hose.¹

The emphasis on service has reached the point at which firms actually compete in service and attempt to show that they give more and better service than their competitors. A systematic program may be carried out to follow up the purchase and ascertain if the customer is satisfied. An aluminum company sends representatives to interview persons who have aluminum ware to see if it is proving satisfactory. If difficulties are discovered they are discussed in detail with the customer, and where something is definitely wrong appropriate adjustment is made. A similar procedure may be followed without actual interviews if the customer receives mail inquiries regarding his attitude toward the product. One organization which sold household appliances enclosed with their statements regarding installment payments a folder raising various questions about service. The folder inquired whether the lights were adjusted properly, whether the user remembered just where to put the oil and how frequently to lubricate, and whether the belt was operating properly with the right tension.

Apart from direct service on the product itself, it is possible to render other incidental services in the interest of good will. A typical instance is the gasoline station in which the operator does much more than fill the tank. Although the actual products involved are gasoline and oil, the staff checks tires and washes the windshield without cost in the interest of building up favorable attitudes toward the station. The memory of the older generation

¹ Cook, R. C. "Hosiery Ads Miss the Mark," *Advertising and Selling*, July 20, 1933, 21, 20 ff.

harks back to the time when the driver inflated his own tires without assistance. The writer still remembers vividly the first time the attendant approached him when he was bending over the air hose and threw a gauge on the ground beside him. That act seemed to be the last word in service in that era. In the modern service station several attendants may work on tires and windshield simultaneously.

Still another aspect of service is the so-called service bureau which is maintained by some organizations. The gas and electric companies, for instance, maintain bureaus which help their patrons keep the appliances in working order. A cooking school maintained by one of the utilities is another instance.

ADVERTISING AND SERVICE

Although service contributes to good will along the lines just discussed, it will not do so unless the public is conscious of it. A specific thing like servicing an automobile naturally comes to the attention of the user, but some industries render a great deal of what might be called service which is merely taken for granted and scarcely appreciated in detail by the user. A typical case is the telephone company which goes to considerable length after storms and in emergencies to keep the telephone service available. Institutional advertising, in order to call the attention of the public to these features, is to the point. The advertisements feature human interest and the activities of the linemen during an emergency. The copy indicates that when the wires are down the linemen are fixing them "for you." Another case is the life insurance concern which features the promotion of health and prolongation of life. The advertisement is not selling insurance directly, but the reader may appreciate the health advice and thus be well disposed toward the company. The utilities find this institutional type of advertising especially beneficial. Many of them are subject to considerable opprobrium due to supposedly high rates or unavoidable failures in service, and the judicious use of institutional advertising may do much to counteract these unfavorable factors. One point in connection with this institutional advertising should be kept in mind; namely, that it is better to feature current services than ancient history. The mere fact that the concern did something altruistic ten years ago will carry little weight with readers at the present time.

If the advertisement features service it is essential to ensue that

the actual service measures up to advertisement. Some concerns are accused of having friendly advertising and poor service. If the reader of the advertisement expects to receive a cordial reception at the store but actually encounters a gruff salesman or a druggist who can't be bothered, the contrast is unfavorable. Sometimes the employees whom the prospect encounters may not have even heard of the advertising. One store investigated this particular point by having their service shoppers ask the salespeople questions pertaining to recent advertising. These service shoppers would ask the salesperson for the "advertised special." This gave the salesgirl an opportunity to mention the various selling points that had been included in the advertisement and thus tie the selling situation in with the advertising, which should have prepared the way for it. In one particular study, however, out of all the selling points mentioned in the advertising apparently only 47 per cent were familiar to the salespeople. After a little intensive training this figure was raised to over 60 per cent.¹ Obviously, if an organization is featuring service in the advertising, every employee with whom the public is likely to come in contact must be aware of what is being done so that he may fit into the general scheme and do his part in promoting good will.

INDIRECT METHODS

Stock. If an organization sells a large quantity of stock to the public, the stockholders at least will be satisfied consumers of the product. Even though one owns a very minute portion of the firm, the fact that he is a stockholder arouses his interest in and good will toward "his own" concern. The American Telephone and Telegraph Company, for example, has 384,000 stockholders. When an American automobile firm organized a company in England they made efforts to favor the British investor. In this same connection cordial letters to new stockholders and periodical letters to old ones about the business of the firm make them feel that they are being taken into the confidence of the directors.

Ethics. The attitude of a concern toward its competitors may influence the public's attitude toward it. An occasional organization "knocks" its competitors and attempts to show that all of their products are inferior or have some undesirable characteristics. Some readers will recall the cigar firm which implied that competing

¹ Peik, B. F. "I Shop the Ads," *Advertising and Selling*, June 8, 1933, 21, 26 ff.

brands were tipped with the saliva of the worker, or the cigarette campaign in which it was suggested that a person reach for one of the cigarettes rather than indulge in "sweets." Most of the advertisers themselves admit that this is poor ethics, but there is the further consideration that the public will react unfavorably to what seems like poor sportsmanship. With the overwhelming interest of the public in sports it is natural that some of the ethical notions regarding sportsmanship should penetrate to other fields. The readers of the advertising, if they feel that it does embody poor sportsmanship, may dislike the organization just as they dislike a team which does something which is questionable from the ethical standpoint. Although advertising in which specific competitors are criticized may convince some prospects and make sales, there is the danger that it will antagonize many others, and in the long run the ill will may be sufficient to offset any possible gain in customers.

Philanthropic Advertising. Pressure is often put upon an industrial organization to purchase advertising space in media where the advertisement will have little commercial value. If the grocer's picnic, for example, issues a program, local merchants are solicited to purchase space. In a college community representatives of the various student publications hound the local clientele in the same way. When space is purchased under these conditions it is done largely in the interests of good will, and such projects may represent a rather heavy drain on the advertising appropriation. Various techniques are used in order to sidestep these projects, such as putting all advertising in the hands of a commercial agency, or joining some merchant's organization which sticks together on its general policy as to philanthropic advertising and has a central committee to which all such questions are referred. These procedures relieve the individual company of any opprobrium in refusing to purchase advertising in some particular medium. It is difficult to evaluate the amount of good will that may be won or lost in this way. The representatives of the publications may be received courteously, at least, even though they are turned down or referred to some other agency. Tact on the part of the person who interviews them may suffice here, as in many other situations involving public relations or good will.

Professional School. The professional school maintained by some of the larger organizations has possibilities of building up a group of people who will spread good will. An electrical manufacturing

organization, for instance, takes young university engineers into a training course. Not all of these remain as employees of the organization but in the process of training it is possible to point out to them many of the good points of the organization. Later when they go forth to other positions they are still well disposed toward the original concern which gave them the training.

Controversial Issues. A concern must be very discreet in the matter of taking sides on political or social issues which are in the field of controversy. If it is an issue on which there are two schools of opinion it is obviously impossible to take a stand which will be agreeable to both sides. The notorious efforts of politicians to straddle illustrate the point. Industrial organizations, however, can more readily avoid such a controversy. If the issue is not directly related to the firm it is usually desirable to evade it altogether and thus avoid antagonizing a portion of the constituents.

SPONSORING ENTERTAINMENT

A commercial concern which sponsors or in some way makes possible acceptable entertainment for its prospects may thus create an attitude of gratitude and good will. The outstanding case is the radio program with the commercial sponsor. Although it may operate primarily to remind the listener of the product or actually to give him certain selling points in the script, it has the further possibility of creating good will. This aspect was more pronounced in the earlier days of radio than it is at present. Listeners of that time, when all was new, were quite appreciative of the program. This appreciation was evidenced by the spontaneous fan mail. A member of the radio department of one agency feels that now the listeners are not grateful for radio programs at all.¹ He believes that people pay for the entertainment in terms of tubes and sets which they purchase, which is a fair exchange, and therefore they take the sponsored program merely as a matter of course. Some people, however, do not rationalize the matter to this extent and may still be appreciative of the sponsor, especially if the program is of the type which appeals to them. If it is an outstanding program, like opera, where they feel that much expense is incurred or where the artist is of high quality and presumably high priced, the good will should be considerable. Suggestions of sponsoring stories

¹ O'Neil, N. *The Advertising Agency Looks at Radio*, p. 29. New York, Appleton, 1932.

in magazines or sponsoring moving pictures have similar possibilities. Even simple things like specialties, although not strictly entertainment features, operate in much the same manner. A person receives a pencil free, and as he glances at the name on the side of the pencil, he is reminded of the donor and is mildly interested in the company.

SOURCES OF ANNOYANCE

Financing. Before leaving this topic, it will be well to mention a few possible sources of annoyance which may have a negative effect upon consumers. One of these sources developed in connection with installment selling. Where the purchase is financed over a considerable length of time a common practice is to sell the contracts to some finance company. This practice was used mainly by automobiles in the outset, but has been extended to less expensive items. The system is fraught with some danger from the standpoint of good will. A customer who has been received courteously at the time of his purchase and has developed a favorable impression of the concern from which he bought the automobile receives a few weeks later a communication from a strange concern telling him where and how to make his payments. This intrusion of a stranger comes as a shock to the purchaser, and he worries as to whether the original organization is going to measure up to the service which he has been led to believe they will give. In many cases a perfectly satisfied customer becomes dissatisfied as a result of this shift of contract. If the original agency is not in a position to do the collecting itself, it certainly should point out at the time of purchase that this other procedure will be followed so that it will not come as an unpleasant surprise to the buyer.

Contests. Another source of annoyance is an almost unavoidable accompaniment of prize contests. The disappointment incident to failing to win the contest is often attached to the sponsor. Many contestants overestimate their own chances as the day of decision approaches, and they may even go so far as to spend the prize money in their imagination, although ten thousand of them are doomed to disappointment. After the winners are announced many contestants scrutinize the winning contributions in comparison with their own and think that they detect a mistake. The difficulty is similar to that experienced by a student in comparing his own examination

paper with that of some other student who made a better grade. It may be difficult for a student to appreciate the standards according to which the instructor graded the paper. In the same way it is difficult for contestants to assume the same attitude as that which was held by the judges of the contest. The net result is that many of these dissatisfied contestants feel that injustice was done and blame the organization that sponsored the contest. As suggested in an earlier connection, it is better to have a large number of modest prizes than a few large ones, but even this makes only a small decrease in the number of losers. Another policy which takes away the sting to some extent is to acknowledge all the replies in some fashion and at least express appreciation of the contestant's interest. Any devices which can be used to make the losing contestant take the verdict with good grace will mitigate these possibilities of ill will.

SUMMARY

Present-day marketing is becoming interested in customers rather than in mere sales. The attitude produced by one purchase will influence subsequent buying behavior. The underlying principle is affective expansion — the tendency for feelings or emotions aroused by one stimulus to spread and attach themselves to other stimuli.

In the most scientific efforts to measure good will interviewers are employed who secure numerous ratings regarding a number of local items, one of which is the store or institution under investigation. The interviewers, however, do not know that the store is sponsoring the investigation so that no element of suggestion is present.

Quality of the product is one factor in good will. In addition to the consumer's own experience with the product, the judgment of some impartial institute lends further weight to this factor.

The sales personnel play an important part in the attitude of the public toward a store. A few tactless episodes may have a far-reaching effect in the local community. Sales training courses properly emphasize these problems of good will. Service shopping may indicate failures from this standpoint which may be corrected.

The complaint department plays a crucial rôle. Some concerns assume that the customer is always right and thus build up a very favorable reputation, although it may cost them something. The personality and self-control of the individuals who make contacts

with the public are especially important. Data as to the most frequent types of complaint will help ward off future ones.

The conditions under which the public is received deserve some consideration. A commodious, pleasant room and a congenial interviewer may create a lasting impression on the customer. Some concerns systematically listen to the conversation of their employees with clients over the telephone or at the window in order to note any unfavorable tendencies which may be corrected. For some organizations, such as the utilities, the only personal contact of many customers is with the representatives who come to the home to make repairs or read meters. In some instances putting uniforms on the meter readers and training them in a few fundamentals of courtesy made pronounced changes in the public attitude toward the organizations.

Many applicants in the employment office may be potential customers and, if they are not hired, should be turned down in such a way that they feel that it would nevertheless have been a good place to work.

When handling inquiries by mail, the personal touch is preferable wherever possible. A prompt answering of the inquiry is desirable, but some concerns allow a month or more to elapse. Some radio sponsors sort the fan mail in order to discover those letters meriting a personal answer rather than the usual form reply.

Service is receiving increasing emphasis in recent years. The aim is to keep the product operating satisfactorily until such time as normal senescence might be expected to affect it. Ulterior service quite apart from the product itself is often rendered in the interest of good will. The incidental service at the filling station is a case in point. Advertising may be employed to make the public aware of the service which is being rendered if it might otherwise be taken for granted.

A concern with a large number of stockholders can count on at least that many persons with a favorable attitude. A concern which criticizes its competitors and shows poor sportsmanship is unfavorably received by the public. Requests to purchase philanthropic advertising must be handled tactfully if they cannot be granted.

Sponsoring free entertainment for the customer, as in the radio program, makes definite contributions to good will, although with the lapse of time many listeners take it for granted and even resent the advertising script.

A few sources of annoyance should be mentioned. With installment selling the contract is often turned over to a finance company, and the intrusion of this stranger into an otherwise pleasant relationship is unfortunate. The numerous losers in contests often feel that injustice has been done and hence dislike the sponsor of the contest.

CHAPTER XXIV

CONCLUSIONS

WE BEGAN our study of the contributions which psychology makes to the problems of the advertiser by considering first the prospect with reference to his wants and desires and the aspects of the product which appealed to him. The actual process of inducing him to purchase was subdivided into short-circuit and long-circuit appeals, and it was further shown that these appeals should vary according to the product and according to the prospect whom the advertiser is attempting to reach. The problem then arose as to the methods of presenting the appeal in such a way as to secure the prospect's attention. Mechanical devices such as size, intensity, motion, contrast, and isolation were mentioned, together with other devices depending more upon the arousal of interest, such as novelty or pictures. A further problem was that of maintaining the prospect's attention once it had been secured. Unity in the construction of the copy, esthetic factors, the arousal of pleasant and appropriate imagery, and adequate legibility of the type contribute to this end. A final task was that of making an impression upon the memory so that when the need arose the prospect would think of the commodity which had been advertised. This problem involved building up associations between commodity and brand, the conventional principles of memory and association such as recency, frequency, and vividness, special devices such as rhyme and alliteration, narrative, reminders, and trade names as mnemonic devices. Certain psychological features of the different advertising media were then recounted, and final emphasis was given to the importance of creating good will rather than merely producing sales.

New Problems. The foregoing pages have indicated advertising problems to which the psychologist is making contribution. It is interesting to take a forward glance as to the direction in which these contributions will move, or even to note new problems which may arise. The point was made earlier that even now there is tremendous competition for the reader's attention, and the principles which have been discussed were in the interest of giving one ad-

vertisement a slight advantage over its numerous competitors. It is probable that the situation will become even more acute in the future. Data on the magnitude of different types of advertising naturally show some slump during the depression, but it appears that the future trend will be upward. This trend makes the problems of attention all the more acute, and presents a still further challenge to psychologists to improve existing devices or to invent new ones for gaining attention. It is probable that some of the devices already discussed will reach a saturation point. If, for example, a much larger proportion of advertisements are colored it is conceivable that color will lose its effectiveness. In fact, the point might be reached at which a black-and-white advertisement would have an advantage because of its novelty. If any of these psychological devices do reach a saturation point, it is probable that "natural selection" will operate and advertisers who find that these devices are not so successful will abandon them. Over a long period of time we may expect such things as color, pictures, and novelty to fluctuate in use somewhat in the manner of cycles. These would not conform to a business cycle but rather to some psychological cycle, depending on the rate at which the public becomes adapted to, or immune to, a device and the length of the period necessary for the advertiser to discover the fact. It is probable that other psychological problems will arise with the advent of new advertising media. The invention of the printing press, for example, brought in newspaper advertising. Some two hundred years later magazines began to carry advertising. Then came the radio as an entirely new medium. As man learned to travel in air, possibilities of sky-writing developed. Television is playing an increasing rôle. As technical developments are made, they will undoubtedly create new advertising media, all of which will have their psychological problems and must be studied *de novo*.

New Techniques. In looking toward the contributions of psychology to future advertising problems, certain developments are probable within the field itself. One of these developments, presumably, will be with reference to technique or methodology. A distinct weakness at the moment is the inability to measure the strength of appeal in any objective fashion. It is still necessary to ask people whether they like one thing better than another, or which would motivate them more vigorously. This difficulty is not unique to advertising psychologists. Throughout the field where

it is necessary to use a questionnaire or ask the subject to make some judgment regarding himself, almost every psychologist feels that the method falls short. It is probable that considerable development will take place in psychological techniques for measuring esthetic reactions, likes and dislikes. Indirect procedures have been developed in a few instances. For example, in measuring certain aspects of personality, the subject is ostensibly taking a memory test, but the results are analyzed in an indirect fashion to throw light on some other characteristics, such as perseverance or honesty. It is probable that similar techniques may be developed for measuring feelings and attitudes toward such materials as are involved in advertising. There are even possibilities in recording some of the involuntary bodily mechanisms. A cue may be taken in this connection from the psychological crime-detection techniques which make it possible to determine whether the subject is lying by changes in his blood pressure or breathing or, possibly, involuntary movements of the limbs or changes in the electrical resistance of the body. Techniques of this sort will be exploited ultimately with advertising problems so that one can make objective measurements rather than use the subject's own report as to his feelings. In this way it will be possible to avoid rationalization by the subject and the tendency to give a good answer rather than the answer which actually characterizes his own attitudes.

Another region for technological developments in method is in the so-called field studies. Although many of the problems may be solved in the laboratory, with the obvious advantages of better control, it is necessary, in order to solve some problems, to secure the subject under conditions more analogous to those under which he normally would react to the advertisement. Field study methods at present are comparatively crude, such as carrying people past poster boards and then using conventional recall and recognition methods. More effective devices for recording involuntary movements, including eye movements, en route will be developed, as well as procedures for getting a record of the behavior of persons in front of a store window or other outdoor display.

As to the rôle of the psychologist himself, he will probably have in the future a closer contact with actual advertising organizations. With a few exceptions, the psychologist has not participated in the inside work of such organizations. He has been called in more frequently to help on problems of personnel or industrial efficiency

or morale. It would appear that, in general, advertisers have not become aware of the need for expert psychological assistance. As the research idea becomes more prevalent among advertising groups the psychologist will undoubtedly be called in to participate in this research. Some of the techniques involved will necessitate his contributions.

Psychological problems of advertising extend beyond that type which is designed primarily to sell something. Institutional advertising is a case in point. If an institution is interested in building up good will and favorable attitudes toward itself, the evaluation of the program necessitates psychological techniques for studying attitudes. Similar questions arise in connection with political advertising, or in any situation in which efforts are made to mold the public's opinion. These problems of social psychology are just beginning to be approached objectively, so that techniques must be developed for ascertaining what motivates people in groups or what motivates them through media such as radio and the advertising page. Measuring the effect of advertising upon opinion rather than upon sales is even more difficult, and all the more challenging to the psychologist.

Responsibility. Before leaving the topic it may be well to recur again to the problems raised at the outset as to the ethical responsibility of the psychologist in this whole program. The point was made that, strictly speaking, the scientist is concerned with means rather than ends, and that his real task is to show how to influence consumers favorably toward a particular commodity, whether or not they can afford it and whether or not it may be beneficial for them. In the light of the intervening chapters it is obvious that from time to time the scientist or the advertising agency is asked for assistance in some program which is ethically questionable. Although as a scientist one may stand his ground and devote himself to procedures rather than the ultimate consequences of his technique, nevertheless, as an individual he cannot entirely shut his eyes to his responsibility in the matter.

Psychology is a comparative newcomer among the applied sciences. Its concern with business problems dates back only twenty-five years. It has made considerable progress already in adjusting persons more adequately to their work and in the promotion of industrial efficiency. In so far as the advertiser is attempting to influence people, attract their attention, impress their memory,

and arouse favorable attitudes, he is dealing with psychological material. A scientific, critical approach to such problems will sell more goods. As this fact becomes more fully appreciated, the psychologist will play an increasing rôle in the field of advertising.

APPENDIX

STATISTICAL SIGNIFICANCE OF DIFFERENCES

IN NUMEROUS places throughout our discussion, data have been presented regarding the difference between two averages or two percentages. When one is interpreting such data, the question always arises as to whether the difference is a "real" one or is merely accidental. The statistical procedure that is necessary in order to answer this question will be explained by referring to a specific problem. (Table 12, p. 134.) There it was noted that in newspaper A, 13 per cent of the words were over two syllables while in paper B, 8 per cent were over two syllables — a difference of 5 per cent in favor of paper A. Perhaps this 5 per cent represents the real difference between the papers, but it is possible that it involves a "sampling error." Let us assume for purposes of discussion that each percentage was obtained by analyzing a sample of one thousand words in the paper in question. If, now, the sample had comprised only ten words from each paper instead of one thousand, we should hesitate to assume that the result indicated the real difference between the papers. This real difference would theoretically necessitate examining all the words that had ever been published in the two journals. It is a question as to how closely the observed difference obtained with our limited sample approximates the real difference. It is possible to answer this question statistically by a consideration of the theory of probability.

This theory may well be approached by assuming that it is possible to analyze numerous samples of data similar to the present one. The count of words over two syllables could be repeated with another thousand words from each paper (total of two thousand) and the differences between percentages computed. Then it could be done with another sample of two thousand, etc. In most of these samples it is probable that paper A would still show the larger percentage of long words, but in an occasional sample A might be inferior; that is, the difference might be in the reverse direction. Out of these numerous samples (theoretically infinite in number) we are interested in the proportion that would yield a difference in the same direction as the first sample; that is, in favor of paper A. If,

say, 99 per cent of these samples pointed in this same direction, most scientists would agree that paper A really was superior in the characteristic under consideration. Expressing it in another way, the probability of a real difference in favor of A would be 99 per cent. If, however, only 75 per cent of these samples yielded a superiority for A, while in 25 per cent B was superior, or in other words the probability of a real difference in favor of A was only 75 per cent, it would be an unwarranted assumption that A was actually superior.

In the practical situation it is obviously impossible to secure these numerous samples and determine the probability that there is a real difference in the given direction. It is possible, however, to estimate this probability (for example, the 99 per cent or 75 per cent mentioned above) on the basis of the first sample alone. To do this it is necessary to consider the "standard deviation of the difference" (σ_{diff} in technical notation). In our initial sample the difference was 5 per cent. In the subsequent hypothetical samples it is probable that many of the differences would be close to 5 per cent, say between 4 and 6, a few would fall between 3 and 4 or between 6 and 7, still fewer outside those extremes, and even a few above 10 or less than 0 (that is, with the difference in the opposite direction). If these differences are plotted in the form of a distribution curve with the magnitude of the differences laid off along the abscissa (horizontal axis) and the frequencies of the differences on the appropriate ordinates (vertical axes), the resulting curve will be the typical "normal frequency curve" or "probability curve" similar to that shown on p. 130. The ordinate for a difference of 5 per cent would be at about the middle of the curve and would be the largest of the ordinates.

If, now, the differences resulting from the hypothetical samples clustered rather closely around the 5 per cent found in the initial sample, we should speak of the variability of the probability curve as being small, whereas if the values scattered over a wide range we should consider the variability to be large. In the former case our obtained difference of 5 per cent would be more typical of the whole distribution of differences, and the chances of any differences falling beyond zero, that is, being negative or in the reverse direction, would be very small. If, however, the variability were large, an appreciable proportion of the differences might be negative.

The conventional index which is computed to denote the extent

of this variability is the standard deviation of the difference. The derivation of the formula is beyond the scope of the present work, but its application may be explained in the following example. The formula is:

$$\sigma_{\text{diff}} = \sqrt{\frac{p_1 q_1}{N_1} + \frac{p_2 q_2}{N_2}}$$

where p_1 in the present problem is the percentage of words in paper A that are over two syllables (13 per cent), q_1 is the percentage in that paper not showing this tendency (87 per cent), N_1 is the number of words counted in paper A on which the above percentages are based, and $p_2 q_2$ and N_2 represent similar figures for paper B. We have assumed that the count in each paper was based on about one thousand words, so that

$$N_1 = 1000 \text{ and } N_2 = 1000.$$

Substituting the above values in the formula,

$$\sigma_{\text{diff}} = \sqrt{\frac{13 \times 87}{1000} + \frac{8 \times 92}{1000}} = 1.37$$

Thus the standard deviation of the difference is approximately 1 per cent. We shall call it 1 per cent to simplify subsequent discussion.

It is to be noted that this standard deviation of the difference is computed from the data in the one sample, but it represents the variability that would be found if numerous other similar samples were obtained and the frequency distribution of the differences plotted. If the standard deviation of the difference is small, the observed difference between the two newspapers is typical of the real difference, and the probability is high that differences would be found in the same direction in subsequent samples.

The next step is to inquire *how* typical is the observed difference, or what is the actual mathematical probability of a subsequent sample's yielding a difference in the same direction.

This question also can be answered by a consideration of the theory of probability. The equation of the normal frequency curve is known, and by means of integral calculus it is possible to determine the area between any two specified ordinates. If, for example, we have the distribution curve for differences centering around the 5 per cent value we can compute the proportion of them falling between 4 and 5 per cent, or between 7 and 8 per cent or, what interests us most, the proportion greater than 0 per cent, that is, in

the same direction as the observed difference. Tables are available which obviate the necessity of actually integrating the equation of the curve. These tables give the areas between ordinates that are specified in terms of standard deviation. That is the reason why it was necessary to compute the standard deviation of the difference. By consulting the table we find, for instance, that between the midpoint of the curve and another value greater (or less) by one standard deviation we have 34 per cent of the area of the curve, or about one third of the cases. In the present example about one third of the differences that would be obtained between papers A and B would fall between 4 per cent and 5 per cent, and another third between 5 and 6 per cent, because our standard deviation is 1 per cent and thus 4 per cent is one standard deviation distant from the midpoint. Similarly, if we go out from the midpoint of the curve a distance of two standard deviations we have 48 per cent of the cases. In the present instance 48 per cent of the differences would be between 3 and 5 and another 48 per cent between 5 and 7.

Recurring to the question of the probability that differences in the hypothetical samples would be greater than zero, that is, in the same direction as the observed difference, it is merely necessary to know the distance of the observed difference from zero in terms of standard deviation and then consult the table. This involves taking the ratio of the difference to the standard deviation of the difference. This ratio is technically termed the "critical ratio." It enables us to determine the proportion of the differences falling between zero and the midpoint of the curve. Adding to this the 50 per cent for the other half of the curve gives the proportion of the differences greater than zero, or, expressing it differently, the probability that the real difference is in the same direction as that found in the initial sample. The following table indicates for a few critical ratios the probability, or the chances in 100, that the obtained difference is real. A critical ratio of 3.0 is accepted by

Critical Ratio	Chances in 100 that Difference is Real
.5	69
1.0	84
1.5	93
2.0	98
2.5	99.4
3.0	99.9

most scientists as indicating a real or "significant" difference, because the chances of its being reversed on a repetition of the experi-

ment or tabulation are only 1 in 1000. In our example the critical ratio is much larger than 3.0 and hence the observed difference between papers A and B is a significant difference.

Similar problems arise when the difference is not between two percentages but between two averages, such as the average intelligence of a group of men versus the average intelligence of a group of women. In the computation of the standard deviation of the difference a different formula is employed, but after this computation the interpretation of the significance of the difference is exactly the same as in the case just discussed at length. The formula is

$$\sigma_{\text{diff}} = \sqrt{\frac{\sum x_1^2}{N_1} + \frac{\sum x_2^2}{N_2}}$$

where x , for example, indicates the deviation of an individual man's score from the average intelligence score of the men involved, $\sum x_1^2$ means that such deviations are obtained for each man; then each deviation is squared and these squared values are summated or added together, N_1 is the number of men in the sample, x_2 represents the deviation of an individual woman's score from the average intelligence score of the women, and N_2 represents the number of women.¹ When this standard deviation of the difference has been obtained the actual difference between the averages is divided by it to give the critical ratio. Looking up this ratio in table similar to that on p. 466, only more detailed, we can determine the probability that the sex difference observed in our sample represents a real difference.

¹ If the two measures have an appreciable correlation between them, a more complicated formula must be used.

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